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# The Province of Alberta

IN THE MATTER OF "THE NATURAL  
GAS UTILITIES ACT"

—and—

IN THE MATTER OF an Enquiry into  
Scheme to be adopted for Gathering,  
Processing and Transmission of  
Natural Gas in Turner Valley

G. M. BLACKSTOCK, Esq., K.C., *Chairman*

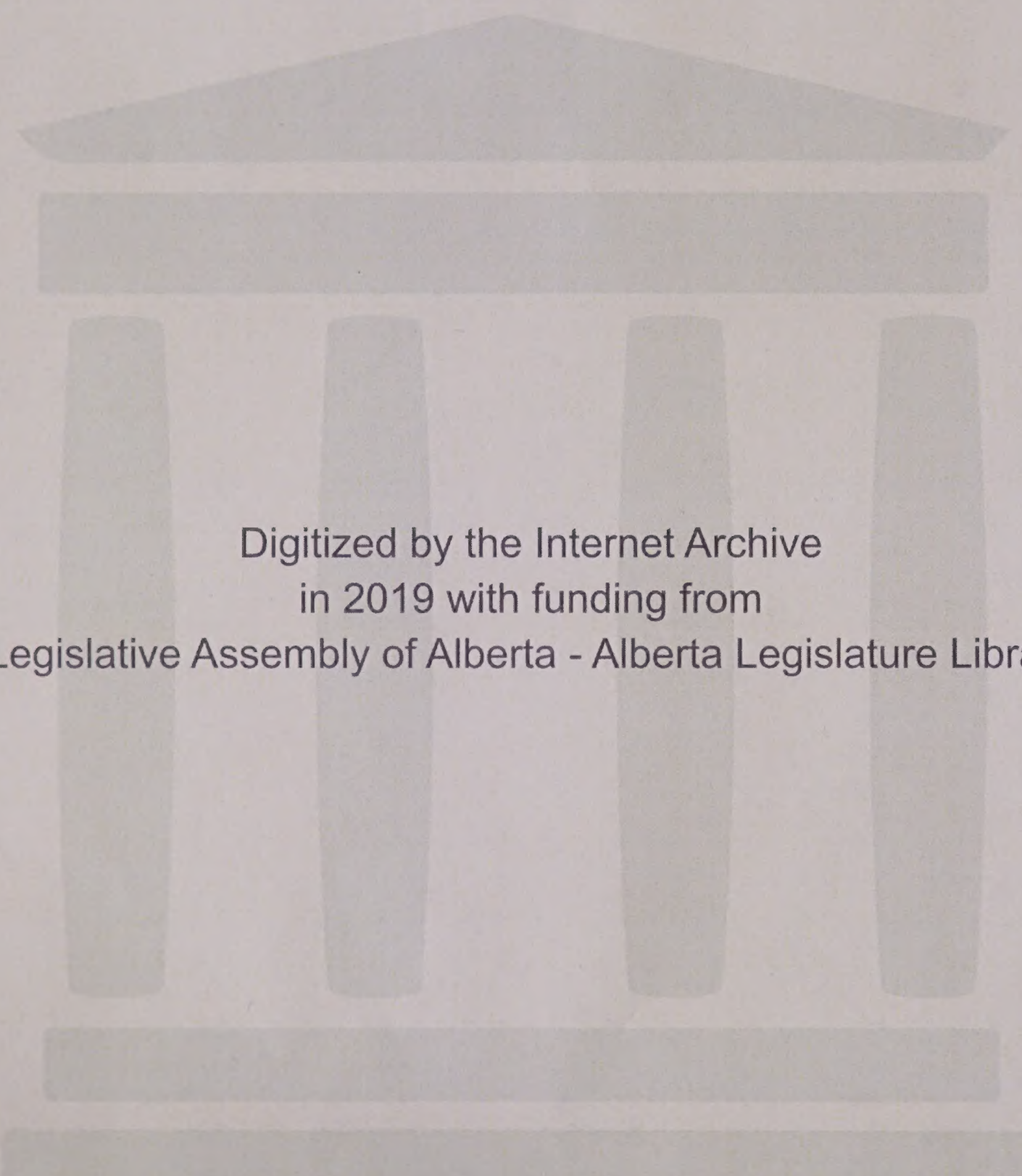
Dr. E. H. BOOMER, F.C.I.C., *Commissioner*

***Session:***

**CALGARY, Alberta** December 5th, 1945

**VOLUME** 57





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I N D E X

VOLUME 57

December 5th, 1945.

W I T N E S S E S

ANDREW STEWART (Continued)

Page

Cross-Examination by Mr. Fenerty.....	4465
Cross-Examination by Mr. Steer.....	4470
Cross-Examination by Mr. McDonald.....	4481
Cross-Examination by Mr. Chambers.....	4521
Cross-Examination by Mr. Harvie.....	4534
Cross-Examination by Mr. Blanchard.....	4545
Cross-Examination by Mr. Fenerty.....	4558A
Cross-Examination by Mr. Chambers.....	4565
By the Chairman.....	4573

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# Corrections

## Corrections by Mr. Fenerty to Volume 56

<u>Page</u>	<u>Line</u>	<u>Correction</u>
4426	17	Last word "quality" should be "quantity"
4432	1	Fourth word "office" should be "offer"
	6	Last words "I am" should be "I am not"
	10	"I do not want you to have both sides and the middle" instead of "I do not want to have both sides to the middle".
4447	1	"You get lots of gas with pumping" should be "You get lots without gas by pumping".
	9	"Well in 1914 I told you yes without hesitation" should be "Well in 1914 I would have told you yes without hesitation".
	15	"The word "residue" should be "reservoir fluid".

.....







M-1-1 - 9.30 A.M.

Andrew Stewart,  
Cross-Exam. by Mr. Fenerty.

- 4465 -

VOLUME 57

9.30 A.M. Session,  
December 5th, 1945.

ANDREW STEWART, cross-examination continued  
by Mr. Fenerty.

Q Mr. Chairman, if you please there were a couple of questions in my haste to close at one o'clock yesterday I did not like to ask. I will be only a moment or two. Prof. Stewart, in Exhibit 132, Page 5, referring to a statement at the second last paragraph:

"In the past more consideration has been given to reproduction cost than to original cost".

I was wondering if that is entirely correct. The reason I ask you is that my study of the synopsis of a large number of cases would seem to indicate that extending over a long period of years that the reverse is true. I was wondering if you went into that ?

A In Exhibit 131, Mr. Fenerty, there is a little elaboration of that point. On Page 24, sub-section 1, under "Fairness to Investors", I have worded it thus:

"Despite inconsistencies and uncertainties in regulatory processes, it appears that in the past more consideration has been given to reproduction cost than to the alternative original cost."

I might say I have in mind the American situation there. Probably, because of the large number of cases which have come up and my reading of the evidence there is that it has tended to change the emphasis from time to time and because of the inconsistencies that I think I see in the judgments. It is a little difficult to say which has been more emphasized than the other. Recently I think the swing has been to original



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Andrew Stewart,  
Cross-Exam. by Mr. Fenerty.

- 4466 -

cost, but my total judgment would be that on the whole reproduction cost has perhaps been....

Q Now you remember your discussion with Mr. Chambers yesterday in both the American Constitution and Lord Watson's dictum as to the effect of Legislation under the British Constitution. I was wondering if you got the same concept as I did. There was an essential difference in that under the American Constitution, a written constitution, certain property rights, vested interests, which were preserved to the individual by the written constitution whereas under the British, the question was whether the Statute dealing with those rights had in express words or by necessary implication perhaps taken away or changed them. Is that the impression you got of the discussion you had with Mr. Chambers. In other words that there was a direct diametrically opposed system. One preserving those property rights no matter what legislation might be enacted and in the other you look to the Legislature to see what had happened to them. Did you get that impression of the two systems ?

A I would not know whether they were diametrically opposed or not.

Q Because if they were I was wondering how you would put the two together to reach a conclusion. That is what I have been wondering ever since that discussion took place ?

A I would like to avoid an expression of opinion on the legal aspects of the problem because I am quite incompetent.

Q Well all right, did you in your analysis or reading of texts with particular reference to American public utility decisions form the impression that in an era of rising prices, costs, that the Boards had leaned towards reproduction costs because







Andrew Stewart,  
Cross-Exam. by Mr. Fenerty.

- 4467 -

of the fear of confiscation and their decisions being declared unconstitutional by the Court ?

A Yes, my reading would suggest that is so.

Q And if my suggestion is correct as to the British form of legislation which may be a matter of law, you will see that particular element is not present on this inquiry ?

A I would not know.

Q It is something to think about. Now then just in other words. Would you agree with me here, rather I will say is your conception of the object to be obtained in a Public Utility inquiry as far as the utility is concerned, is to ensure so far as it can be ensured the return to the utility of the capital invested, together with a fair rate on that capital ?

A Well I would say that the primary purpose is to protect and advance the interests of the consumers, but that the assurance of a reasonable return on investment is a necessary condition to achieve that.

Q Yes, and assume the traffic will stand it, and you do secure the return of the investment and you seek to secure the return of the investment together with a reasonable rate of return on that investment. I suggest to you that is accomplished by starting with historical cost or actual cost ?

A I think I should have put my previous answer - the expectation of a reasonable rate of return on capital at the time of investment. Now as things develop there is always the element of risk and particular investors may do better or may do worse, but there has to be the expectation on the rate of return. In particular cases they may do better or they may do worse.

Q But assuming that the Board takes all the proper elements into consideration and uses that formula for determining the rate



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Andrew Stewart,  
Cross-Exam. by Mr. Fenerty.

- 4468 -

base, that is the historical or original cost, I say if they have worked out the consequences that flow from that and use the proper figures they have secured to the utility a return of its investment and whatever may be determined as the fair rate of return on that investment. That is a necessary result is it ?

A They have determined the rate of return on the original investment, yes.

Q And I understand you to agree with me so far as consistent that the interests of the public and so far as the traffic will stand it that is an object to be achieved, protection of that investment, the return of it in full and a reasonable rate on it ?

A I say the assurance of that at the time of investment.

Q Now then when you come to a reproduction cost basis, I am not going into it in length. This is just amateur economics. I just want to see if I am right. No matter on what date you fix the rate base on that base you have necessarily done one of two things. You have provided for either a capital gain or a capital loss ?

A In comparison with the original investment.

Q And no matter how often you adjust it, unless the figures remain stationary throughout the life of the investment, that situation will be present. Either capital gain or some capital loss ?

A And with continuous application of the method, there being ups and downs, there are temporary capital gains in the sense in which you are using the term and temporary losses .

Q But you never expect to wholly adjust this. There is no way you can do that so that they will just provide for the return







Andrew Stewart,  
Cross-Exam. by Mr. Fenerty.

- 4469 -

of investment ?

A In practice I admit that because of slowness of procedure where reproduction cost is concerned .....

THE CHAIRMAN: Excuse me Mr. Fenerty, but I would like Prof. Stewart to finish that.

A My point is this, if reproduction cost is to be applied then theoretically whenever there is a change in prices the rate base should be adjusted. Now if that works immediately and automatically you would get rapid adjustment of the rate base which would change. In practice I see because of the time involved in securing a restatement of the rate base that there is a considerable lag in the timing of the changes in the rate base under the reproduction cost method and in practice it does not work out.

Q And you will agree with me that unless Counsel or its successors in title are going to be before this Board continuously during the life of that utility, you cannot ever achieve those things.

MR. HARVIE: A little louder please Mr. Fenerty.

Q MR. FENERTY: Well I will not go over that again. You will agree with me that it involves almost continuous adjustment to achieve the object of return of the investment and a reasonable return on that investment ?

A I agree, yes.

THE CHAIRMAN: Of course Mr. Fenerty, I am hoping this Hearing will finish in my lifetime.

Q MR. FENERTY: That is what this cross-examination is directed to, to finally ensure it will. Just one more word. Will you agree with me that it is no function of the Utility Board to provide a capital gain for a utility ?







Andrew Stewart,  
Cross-Exam. by Mr. Fenerty.  
Cross-Exam. by Mr. Steer.

- 4470 -

A Well I accepted the term "capital gain" earlier in the sense in which you were defining it as a rate base. At a later point, higher than the initial investment.

Q Thank you.

CROSS-EXAMINED BY MR. STEER:

Q I won't keep you long Prof. Stewart. I notice that you devoted a special section of your report to the case of depreciation of a wasting asset. Depreciation in the case of a utility operating a wasting asset ?

A Yes sir.

Q Now you regard a utility of that sort as being somewhat different from the ordinary conception of a public utility ?

A No I would not put it that way, Mr. Steer. I think that under Public Utility Regulation it is a significantly different type of situation and the principles which would normally apply to other types of utilities are not necessarily applicable in this case.

( Go to Page 4471 )



CHAPTER I

The first part of the book is devoted to a general survey of the subject. It is divided into three sections: the first dealing with the history of the subject, the second with the theory, and the third with the practice.

The second part of the book is devoted to a detailed examination of the theory. It is divided into two sections: the first dealing with the general principles, and the second with the special principles.

The third part of the book is devoted to a detailed examination of the practice. It is divided into two sections: the first dealing with the general principles, and the second with the special principles.

The fourth part of the book is devoted to a detailed examination of the practice. It is divided into two sections: the first dealing with the general principles, and the second with the special principles.



H-1-1 9.45 a.m.

Andrew Stewart,  
Cross-Exam. by Mr. Steer

- 4471 -

Q In other words, would it be proper to say that you divide utilities into those with a definite and those with an indefinite life?

A If I might put it one with apparent continuity of existence and one with with an apparent limited life.

Q Yes. And you would probably say that the one with the apparent continuity of existence by reason of regulation, owes a duty to the public to continue to render the service to the public?

A I think so, yes.

Q And with your experience of the public utilities, and your own reading of the Public Utilities Act, you would say that there is a duty to continue to do so as far as reasonably practicable?

A Of course if it were impossible for a utility to continue to operate at all profitably, I do not think you could prevent it from closing down.

Q No. I suppose whether it would be profitable for it to continue to operate or not, would depend upon the decisions of the Utilities Board?

A Although it is possible to conceive of circumstances where even the Board could not make a utility to operate profitably.

Q But whether it continues to render service or not, depends upon ultimately the decisions of the Board?

A Yes.

Q And if the decisions of the Board are such that the utility cannot operate profitably, then, as you suggest, the utility may close down?

A Yes.

Q But so long as the utility is in a position to operate profitably, and if it is one of those which you describe as having an







Andrew Stewart,  
Cross-Exam. by Mr. Steer.

- 4472 -

indefinite life, then it is the duty of the utility to carry on?

A Yes.

Q It has received certain benefits from regulation?

A I would agree in general that is so.

Q And in return for those benefits from regulation its duty to the public is to serve the public.

A Yes.

Q And what you say about the utility operating a wasting asset has to do, as I gather it, largely with the question of depreciation?

A That is so.

Q And it would be your view that operating a wasting asset and the equipment ordinarily having a life longer than the life of the asset, is no reason why the proprietor of the public utility should not withdraw any moneys taken for depreciation as it is set up in the books.

A Well I would not recommend using the book evidence in the particular case.

Q You would not recommend it?

A Using the book evidence. I would proceed on the assumption that the utility had sought to protect itself by depreciating its assets at the rate at which the material is being used up.

Q Quite so. And we will assume that that depreciation fund is handled in that way, that is to say on the basis of throughput, and we will assume that the life of the asset is longer than the life of the undertaking, then doesn't it follow that the depreciation fund is available for the investor?

A Yes.

Q Yes. Now I put it to you that in the other type of utility that that is not so, that it being the duty of the other type





Andrew Stewart,  
Cross-Exam. by Mr. Steer.

- 4473 -

of utility to continue its service that it must hold that depreciation fund and use it in its business?

A. Yes, that is one of the essential differences between the two.

Q. Yes?

A. You are recovering and withdrawing your investment in the one case.

Q. Yes.

A. You are providing for replacements.

Q. There is no replacement in your utility in the definite life of it at all?

A. Not in the case of the asset which lasts longer.

Q. Quite so. But in the other case there is not only the duty of replacement, but there is the duty of providing additional facilities as they may be required?

A. Yes.

Q. And those additional facilities are connected with the service itself, and with the necessary and proper extensions of the service?

A. Yes.

Q. Now, a word on the question of rate base. I wonder if I am right in this, that you said in considering a rate base the Board should have in mind, first, the reasonable expectations of the proprietor at the time the facilities were constructed?

A. Yes.

Q. That is one. And, secondly, the Board should have in mind alternative opportunities of investment?

A. Yes sir.

Q. Now I wonder if I am right in thinking that your alternative opportunities of investment can have any application at all to a utility which has constructed facilities and then finds





Andrew Stewart,  
Cross-Exam. by Mr. Steer.

- 4474 -

that those facilities are being brought under regulatory control. What I suggest to you is that the proprietor some time back, before there was any question of controls, has committed his resources to an undertaking, and that what the Board is to consider is the reasonable expectations of profit that he had at the time that he made that commitment, is that right?

A Yes.

Q And that, therefore, the question of alternative opportunities could not have any bearing?

A In my submission I used the alternative opportunity principles more in relation to the rate of return than in the determination of the rate base.

Q I see?

A But with regard to the valuation of properties for determination of the rate base, my feeling is that there is a difference between different kinds of assets, that is supplies on hand, which are readily saleable might properly be valued at going market prices, because of the alternative opportunity there.

Q Quite so?

A Of ready disposal of it. In the case of assets which are in a sense more permanently committed to the particular purposes, then you have to strain the principle of alternative opportunity to make it apply.

Q Quite so?

Now one of the duties of the Board, as probably you are aware, is to fix the price of this commodity, natural gas. You knew that?

A Yes sir.

Q And I suppose that in your view there are two criteria of reasonable expectation and alternative profits should be applied by the Board in determining the fairness of that price, or





Andrew Stewart,  
Cross-Exam. by Mr. Steer.

- 4475 -

could you say there are any others?

A In terms of fairness I think that that is my position as you have expressed it, Mr. Steer. Whether a price was determined as workable or not would depend on other conditions.

Q Quite so. That is from the point of view of the proprietor those are the things that ought to be considered?

A Yes.

Q And so far as reasonable expectation is concerned, it would be reasonable expectation at the time of the investment of the money, in what I will call fixed assets?

A Yes sir.

Q I wonder if I understand you rightly on the question of obsolescence? There is a very interesting example that you give in your report in which, as I understand it, you say this, - I take it first of all that this question of obsolescence can have no application to the case where original cost is the basis on which the rate base is constructed?

A Well I would have to put it this way, that I think if original cost or actual cost is to be implied as the method of determining the rate base, that consideration has to be given for the risks of obsolescence. That is, assuming that actual cost is accepted, then I would imagine that you would have an approved system of accounting established.

Q Oh yes?

A You then make an investment in a new piece of equipment, and obsolescence is one of the risks which is involved in that investment.

Q Yes?

A And some decision would have to be made to provide in the books for a reasonable method of taking care of that risk.

Q Quite so. What I would take from your answer is this, that if





Andrew Stewart,  
Cross-Exam. by Mr. Steer.

- 4476 -

you have got, we will say, a piece of equipment involving a chemical process and the article with respect to that process is changing, and the proprietor is likely to be faced in a comparatively short time with a new process, that he ought to take that into account in determining the number of years over which he would write off his old machine?

A Yes.

Q His first machine?

A Yes. I would make it even more general than that, and say that even if you do not know what the rate of technical change is you must assume that that risk exists.

Q Quite so. And apart from that fact, if you are going to use original cost you are not concerned with the question of obsolescence?

A Apart from that.

Q Apart from that, exactly. But if you are going to use reproduction cost new less depreciation as the basis, then the question of obsolescence becomes important?

A Yes sir.

Q And more important, because what you told me with regard to obsolescence with respect to original cost, I suggest is simply a question of the timing of your depreciation?

A I find difficulty in not thinking it exactly the same problem.

Q Well I understood your view to be that there is really no essential difference between physical and functional depreciation?

A In terms of their effect I think it is unnecessary to draw any distinction between them.

Q Yes. So that what you told me with regard to obsolescence as applied to an original cost rate base, doesn't it amount to this, that it is just a matter for the proprietor to determine

PLANT AND ANIMAL

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Andrew Stewart,  
Cross-Exam.by Mr.Steer.

- 4477 -

the number of years over which he is going to write off his plant?

A No, I think it is more than that. Even under original cost I think it is more than that, because supposing that his reasonable expectation is ten years of life, taking into account both structural and functional depreciation, he then proceeds to write it off at the rate of one-tenth each year. Now at the end of five years the rate of technical change having been greater....

Q Yes?

A .....then he expected?

Q Yes?

A He may then have to replace.

Q Yes?

A Or the other condition might develop that at the end of 10 years he has written it off, and there is no good ground for replacement. The technical changes have been much slower. In the first case he has lost, and in the second case he has gained.

(Go to page 4478)





T-1-1 10.00 A.M.

Andrew Stewart,  
Cross-Ex. by Mr. Steer.

- 4478 -

Q Yes.

A He assumed that risk when he made the investment. There are problems that should be handled under original cost with an approved set of accounts.

Q Quite so. As I read your discussion of obsolescence, the example you give in your report with respect to reproduction cost new the problem is quite a different problem. You say, as I understand it, that you take reproduction cost new and by doing so you make an adjustment of the original cost for changes in prices.

A Yes, substantially.

Q But once you take reproduction cost new and compare it with the original cost you have made the adjustment or price changes.

A Yes.

Q That is from that reproduction cost new you deduct depreciation from the books, if it has been properly entered in the books or from observation afterwards.

A Yes.

Q That gives you a certain figure and then as I read your report you say there that is depreciated over the amount a substitute plant could be obtained for.

A I think I suggest that the factor of obsolescence can be taken care of in two ways. One is to evaluate the property as new and then determine the depreciation which covers both structural and functional depreciation. Then you take obsolescence into account at that point.

Q If that were done there would be no need for any further adjustment.

A For obsolescence, no. Merely for the physical wear and tear





Andrew Stewart,  
Cross-Ex. by Mr. Steer.

- 4479 -

you make an adjustment and I then go a step further and take into account the value of a substitute and efficient plant to replace it and obsolescence would enter into that comparison.

Q And I suppose essentially the second method would apply.

A I think not in practice.

Q The same principle?

A My mind is not quite clear on that point. I think if you could compare the value of a different plant with the existing plant, a lot of the existing parts which form the aggregate might be entirely efficient and other parts might not, but some of the pieces of the existing plant in the aggregate would be retained and would be of service.

Q But let us look for a moment at the boosting station.

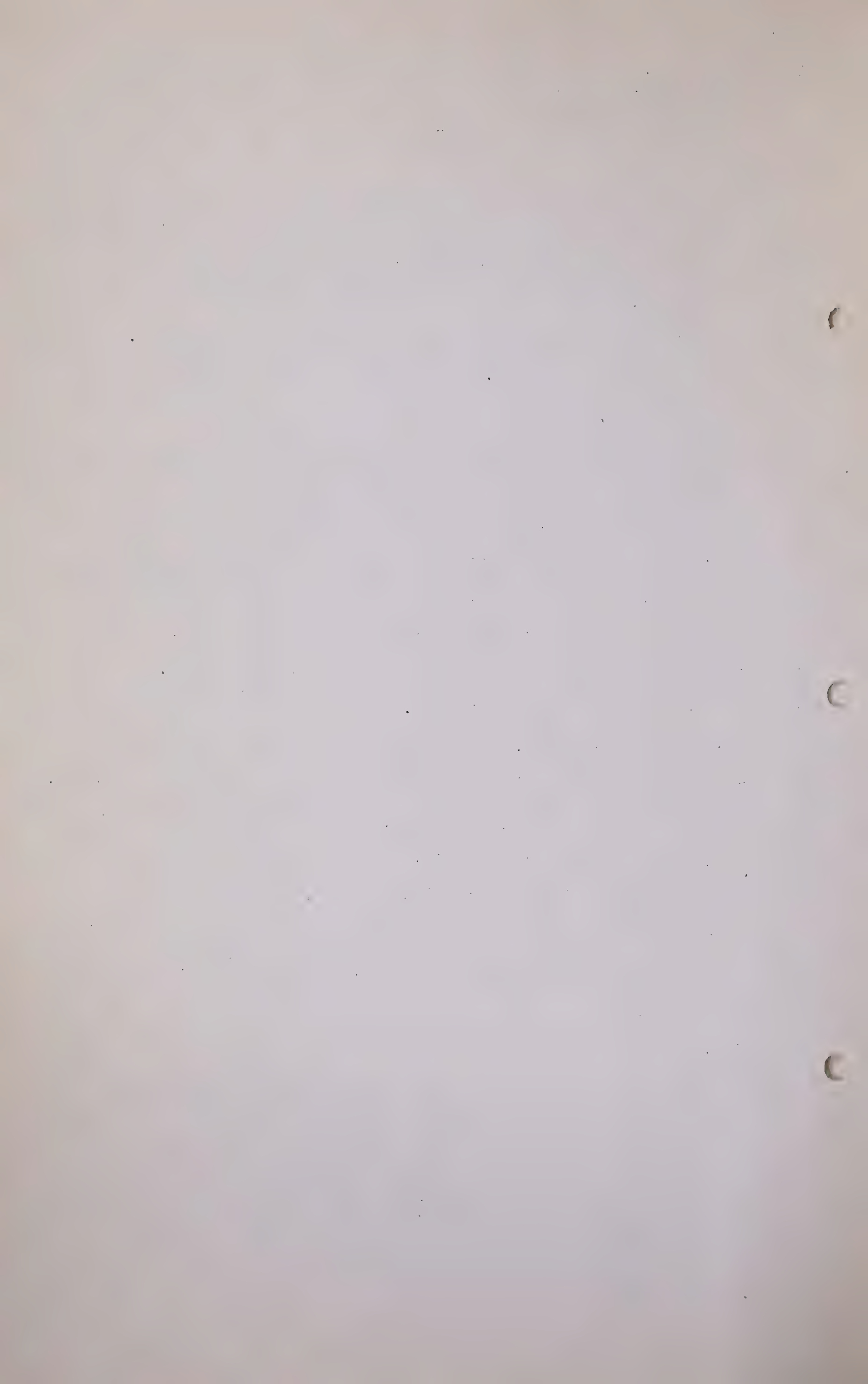
A I am sorry. That is beyond me.

Q A compressor station, a station which is designed to bring gas through a pipe line and compress that gas to high pressure. You have quite a lot of machinery and included in that machinery there is the compressor. We will assume that the other parts of that equipment have not had any technical changes to improve them but that there are distinct technical improvements with respect to the compressor itself. Do you follow me?

A Yes.

Q Now applying your theory to the compressor, which is an integral part of the whole operation, would you apply what we have been talking about with respect to the method of depreciating and obsolescence, would you or would you not?

A I would depreciate that piece of equipment to include obsolescence.





Andrew Stewart,  
Cross-Ex. by Mr. Steer.

- 4480 -

Q And would you do it by the second of your two methods?

A Yes, my example of obsolescence would proceed from a comparison of the cost of the two pieces.

Q That is along the line of the example you give in your report?

A Yes.

Q And in doing that is that all or should not consideration be given to the difference in operating costs between the old obsolete plant and this assumed new plant? Or do you take that into consideration at all?

A Yes, in the efforts to measure the degree of obsolescence I think you might proceed to get the difference in the cost of operation.

Q But in the example you give, where you take reproduction cost new less depreciation and then you find out what the alternative can be bought for and you say it is the cost of the alternative that is to be put in the rate base?

A Well I think I can say it this way. We have here one piece of equipment which is installed which appears to be obsolete because of technical developments. Here is a substitute equipment and if this piece of equipment, excluding capital cost, but operating costs, can be operated at half the unit cost that this one can I would then capitalize the difference in cost and that would represent the amount of depreciation in the capital value of the installed equipment.

Q That is all, thank you.

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Andrew Stewart,  
Cross-Ex. by Mr. McDonald.

- 4481 -

CROSS-EXAMINATION OF THE SAME WITNESS BY MR. McDONALD.

- Q Professor Stewart, yesterday in your discussion with Mr. Fenerty you referred to waste gas in Turner Valley. That was crude oil gas, produced by crude oil wells that had, prior to regulation, been flared and destroyed by burning.
- A That is produced from wells which produced both oil and gas.
- Q Are you familiar with the history of conservation in Turner Valley and in the final passing of this legislation which we are dealing with in this Hearing?
- A I would not like you to assume that I am aware of that. I have a rough knowledge of it.
- Q Have you any knowledge of the benefits that may be derived from the repressuring of this waste gas by one or more parties that are interested?
- A I understand that it is the expectation that the repressuring will extend the life of the field.
- Q Yes you have a hazy idea of that.
- A I have been so informed of that.
- Q This is the only suggestion I have to you in addition to your observation to Mr. Fenerty, would you give consideration to the parties who may benefit from the repressuring of this waste gas?
- A That would seem to be reasonable.
- Q That is in arriving at a value of it either when it is reproduced or when it was first repressured?
- A Yes.
- Q Now as a general proposition would you agree with me that if any owner stored a product which he owned at some expense for some years and then offered it for sale, the cost of storage would be a legitimate charge to be included in the





Andrew Stewart,  
Cross-Ex. by Mr. McDonald.

-.4482 -

eventual sales price?

A Under conditions of competitive production and sale, he would not necessarily recover that. But I would put it this way, under these conditions he would not engage in an activity unless he thought there was a reasonable chance of recovering it.

Q That is the storage charge in addition to the commodity value of his, or the real value of his commodity.

A Yes, quite so. I mean no business man is going to carry stocks of a commodity unless he thinks he can recover not only the price of it today but will recover any costs incurred in the storage.

Q And he would also take into account the interest on his investment in the storage cost?

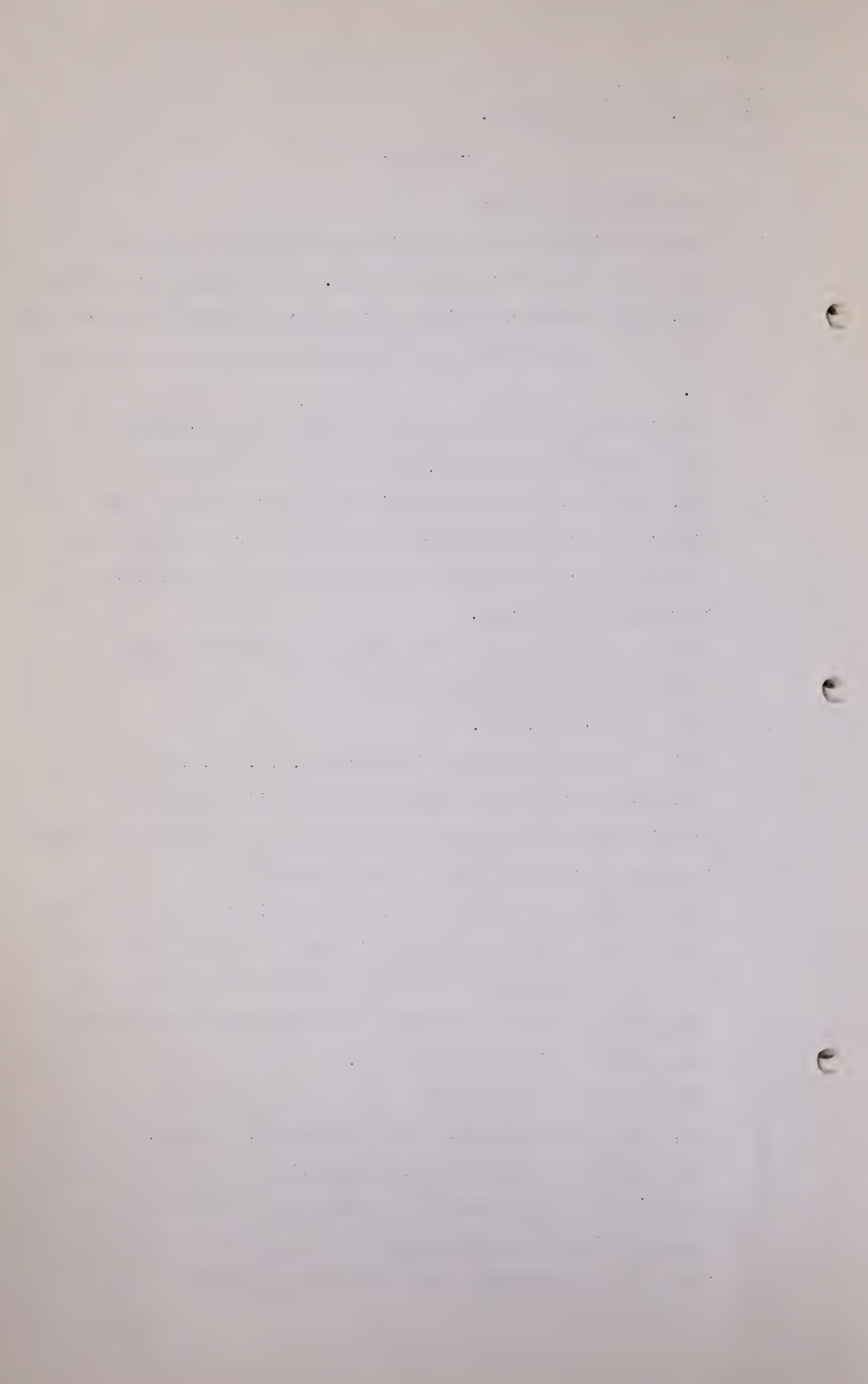
A That would be so, yes.

Q Is it a general principle in utility . . . . .the application of utility principles that all costs that a party incurs should be taken into account in fixing the prices or rates which the utility should receive?

A I would not go as far as that. That is if by costs you mean any expenses which the utility incurs. I do not think that there is any necessity that they be covered. That is they should be the sort of expenditures which would be approved under public utility regulations.

Q That is they are prudent?

A Yes, that is one factor. The other point, I think, is that the attempt of public utility regulation is to give reasonable assurance of the recovery of costs but even there I do not think that it is possible, nor is it necessarily the intention of regulations to eliminate all risks.



Andrew Stewart,  
Cross-Ex. by Mr. McDonald.

- 4483 -

Q No. There are risks that still have to be borne.

A Yes.

Q But generally a successful utility or one that has 'got by' as it were and evaded most of the risks, generally it would receive . . . . .

A If it were successful it would receive them, yes.

Q And I suggest to you that the investor in the utility anticipates that he is going to get those costs covered when he makes his investment?

A No, I think you are going further than I would go. He is given a reasonable chance. The conditions provided are such as will give him, subject to his initiative and the conducting of his business in a satisfactory and efficient manner, he has a fair chance of recovering his costs.

Q And in that fair chance, he has a reasonable expectation that the regulation by any Commission or Board is not going to force him to give anything away that is of service to the consumer?

A I would say yes.

(Go to page 4484)





Andrew Stewart,  
Cross-Ex. by Mr. McDonald.

- 4484 -

Q Now then, in other words, the phrase we have used here "devoted to the public service" does not mean "donated to the consumer"?

A I would not say so.

Q Yes.

THE CHAIRMAN: We would not be here, Mr. McDonald, if that were the case.

MR. McDONALD: No.

Q Now you were mentioning, or Mr. Steer mentioned to you a moment ago, Professor Stewart, that the question, or shall we say the theory of reasonable expectation which you outlined in your submission could be applied to the value or pricing of the gas at the well head, and I think your answer was that it was relevant to it. As I understood Mr. Steer's question, the inference to be drawn from it was that if the investment had been made in an oil well which produced the gas, some of the gas, that at the time of that investment there was no reasonable expectation that the gas would ever be sold and the fact that the fixing of the sale price of that gas now, the fact it was never going to be sold or there was no expectation of it ever going to be sold at the time of the investment, should be taken into account. Was that what you intended to convey by your answer?

A No, I think that was not quite what I had in mind.

The particular point I was emphasizing was that in the procedure of public utility regulation there should be a consistency which will enable the investor to anticipate the actions of the regulating body if at any time they come under regulation and that that is necessary to the kind of assurance which in turn is necessary to bring





Andrew Stewart,  
Cross-Ex. by Mr. McDonald.

- 4485 -

out capital investments under our system of private investments.

Q Well then, if the business had not been under regulation at the time the original investment was made, you not only have to take into account the reasonable expectation of selling the product or by-product or one of the products which are produced, but you have to take into account the fact that it may not have been a reasonable expectation that the business would or would not be regulated.

A Yes.

Q But the mere fact of regulation brings in the effect of expectation or that expectation will have a bearing.

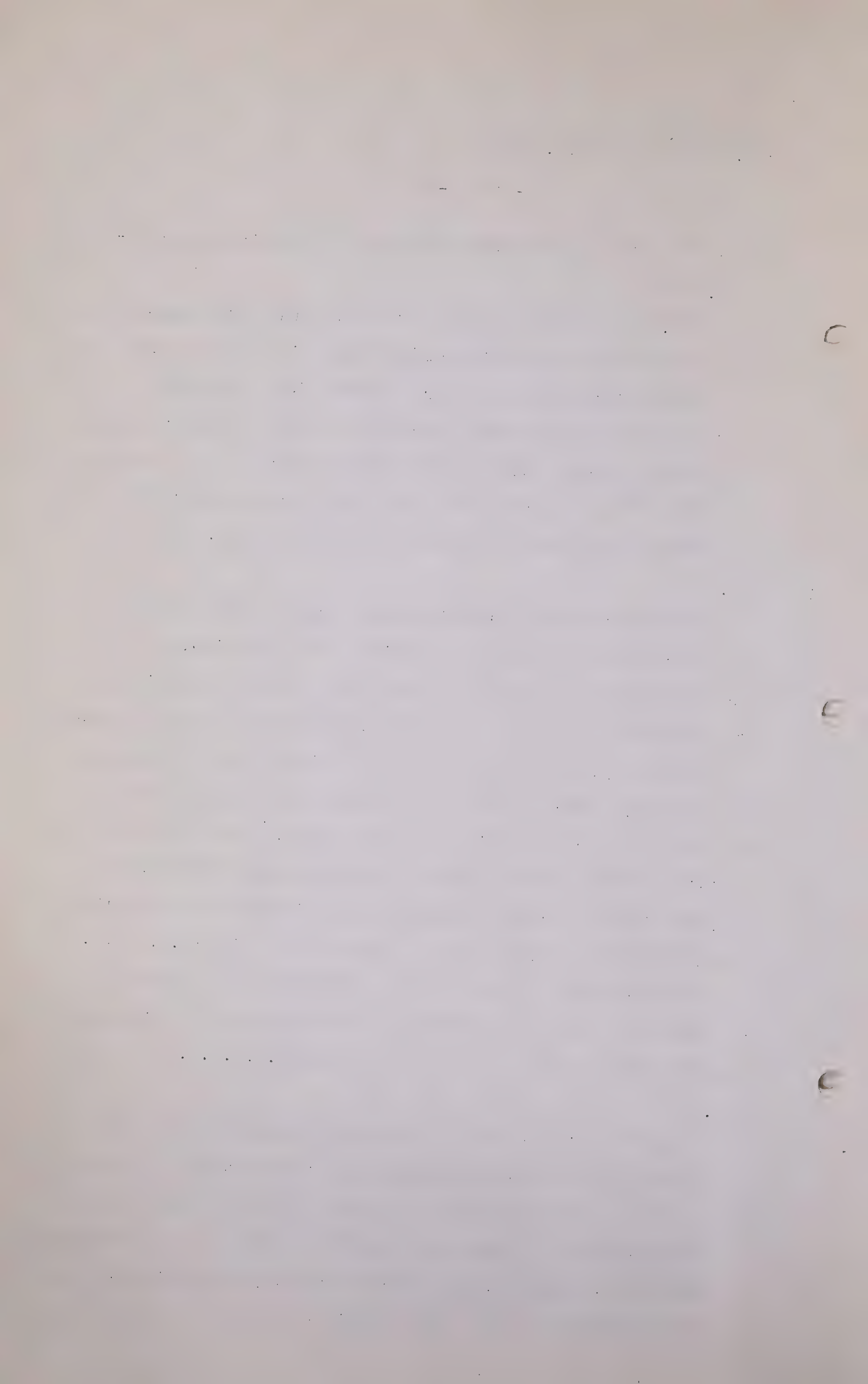
A The amount of regulation may make a change in that basis of operation and to some extent the results of the operations of the utility. My contention is that if the investor can judge what the decisions of the regulating body will be, if and when they are brought under regulation, then they can anticipate that and adjust their behaviour accordingly.

Q Yes, but if that is not anticipated and is not a reasonable expectation at the time of the original investment . . . . .

A I would agree that if you are considering an area where regulation has not previously been applied, that is supposing you take bakeries in the City of Edmonton . . . . .

Q Yes.

A I do not think it would apply in that particular case because there would be no grounds for investors in bakeries to expect regulation in that case, but if you are dealing with an area of production in which there has been regulation, not in a specific situation or case but in the general area or in related fields, then I think it comes in as a problem



Andrew Stewart,  
Cross-Ex. by Mr. McDonald.

- 4486 -

when the investment is made. I admit it is possible to strain that argument too far.

Q Yes, yes. The theory has been advanced, Professor Stewart, that when regulation is applied there is a restriction on the freedom of action of the proprietor of the business which is regulated.

A Well I could not see that regulation would be effective, would have any consequences, unless it did have some of that effect.

Q Yes. And where regulation is applied, not to a service but to a commodity, that that affects the freedom of sale and it affects the use of the product, the usages of the product, and to that extent should be, the proprietor should be compensated in the final fixing of the sale price of that commodity.

A I think I would agree with that.

Q Professor Stewart, outside of milk, in this Province, do you know of any commodity that is governed by public utility regulation, the sales of them?

A Any commodities?

Q Yes, any commodity, any article of sale, and I suggest that milk is such.

A Water.

Q Water, yes.

A Yes.

Q Yes, water is one. Electricity is another?

A Yes, if it is a commodity.

Q That is what is meant by my question. What I had in mind is this, that in asking this question as to the gas at the well head, the evidence to date introduced here is that the





Andrew Stewart,  
Cross-Ex. by Mr. McDonald.

- 4487 -

question of approaching it from the question of costs is not going to be feasible but that we have to approach it as a commodity value, on the basis of a commodity value and I was wondering if there were any other fields in which we could look for a precedent.

A Well I take it that this field is under public utility regulation in the United States.

Q No.

A Not this field in Turner Valley but I mean this particular commodity is.

Q Well the information I have is that no one has yet ventured to fix the value of gas or oil at the well head.

A I would not know about that.

Q Except as an incident to fixing transportation rates of the gas and that is a very minor section of the gas business.

Now, Professor Stewart, you, in dealing with the rate of return, I notice in your submission you refer to "pure interest ", just what do you mean by "pure interest "?

A Well we take the rate of return of safe or gilt-edged securities as the measure of the payment for the use of funds. Now in addition to that, in particular situations, there is a variation in the risk and in the case of safe securities you assume that the risk factor does not exist but in other types of investments there is then a risk factor which has to be considered and under competitive conditions, that is where there are free investments, investors will not put their funds into hazardous investments unless there is offered a differential rate of return as an inducement to assume the additional risks. That is, if I had the choice as the





Andrew Stewart,  
Cross-Ex. by Mr. McDonald.

- 4488 -

average per cent of  $3\frac{1}{4}\%$  on a safe bond or say  $6\%$  in a business which involves certain industrial risks, I might prefer the  $3\frac{1}{4}\%$  because I might think the difference of  $2\frac{3}{4}\%$  was not sufficient to overcome the disadvantages of the hazard in the second case.

Q Now reference has been made in the Hearing to date of  $3\%$  as the pure interest rate in Canada, have you anything to say about that?

A Offhand, I would like to have more information before me before I would answer that or give closer study to it than I have done. That would seem reasonable enough to me.

Q The suggestion is that that was the rate on Dominion Government Securities.

A Yes.

Q On your definition of "pure interest", would you still say there is no risk in Dominion Government Securities?

A Well there is nothing in a philosophical sense that does not involve what we call "risk". I suppose it is the least risk, that is to say the backing of the Dominion of Canada provides as sure a basis as you could get.

Q Well what prompted that question, Professor Stewart, was that reference was made, in the reading I have done in regard to the United States Government bonds, and the suggestion there was that the yield on the Government bonds includes an element of computation for risk in the  $2\frac{1}{2}\%$  that the United States Government bonds sell for.

A Well what we call "zero" is just a point and for practical purposes I think we have to take the safest form of investment as being zero, but if you like to say there is an element of risk in it, I do not think that affects the thing.



Andrew Stewart,  
Cross-Ex. by Mr. McDonald.

- 4489 -

There is still the comparison of the risks of others with that least risk.

Q Then the difference between the "pure interest" and the upper limit of the interest charge is what you would call "compensation for risk".

A I would call it an inducement to assume the risk.

Q Yes. It is compensation for taking the chance of a loss on the investment.

A In the end, well no, I would not put it that way. It is the necessary incentive to induce people to undertake the risk. Now when I used the word "risk" I am not thinking of "loss". That is only one side of the picture. If we knew that we were going to lose anything then there is no risk and we just stay out of it. The risk is the uncertainty of the rate of return. It may be high or it may be low.

Q And there may be a loss too,

A Well yes, that is part of it, there may be a loss.

Q Now then those risks which I think you have, the risks as you have outlined them on page 21 of your Exhibit 131 . . . . .

A Exhibit 131?

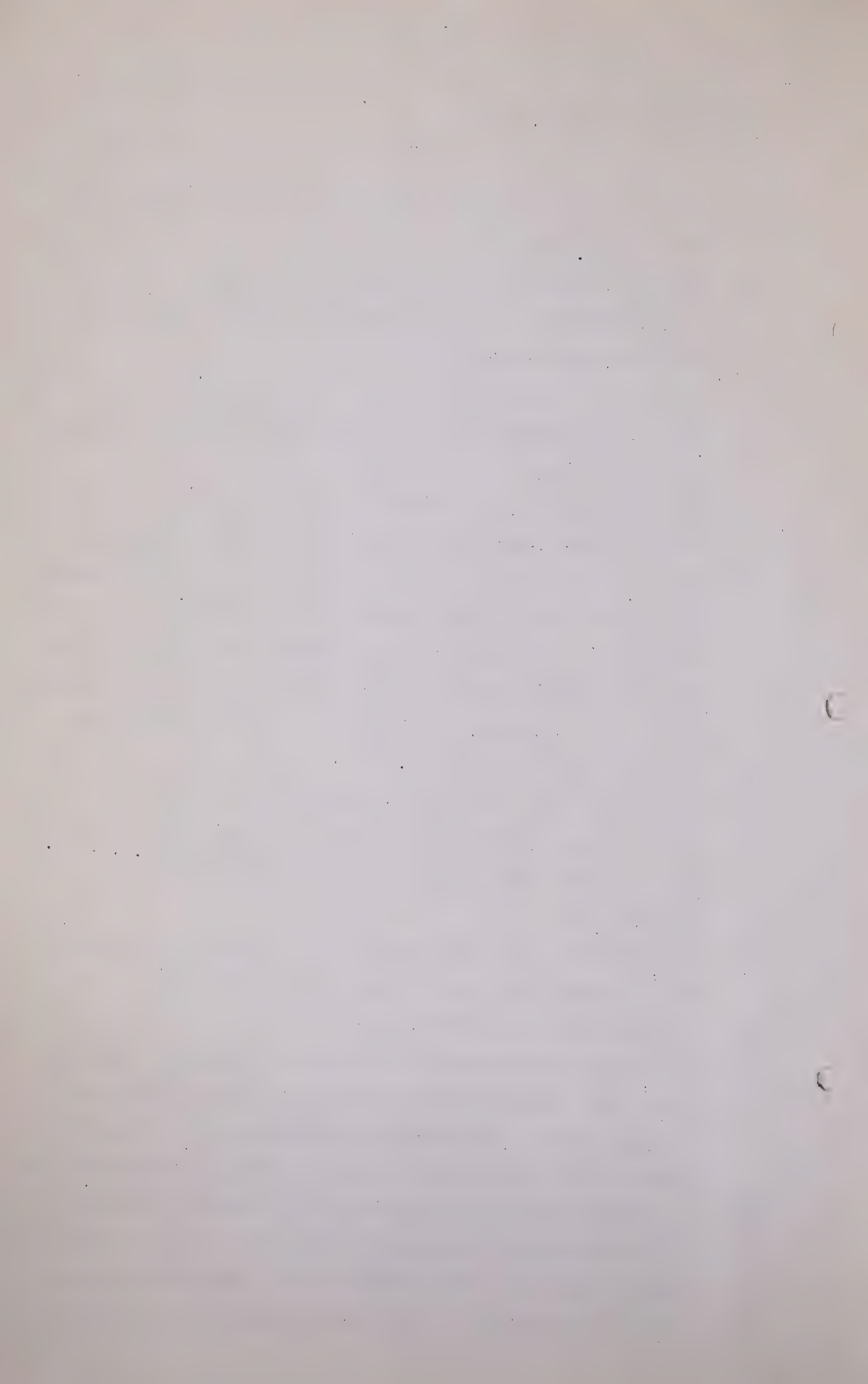
Q Yes, page 21, you refer first of all to physical hazards. Now I suggest that one of those is depreciation.

A Depreciation is a hazard, yes.

Q Yes, and the others would be charges or expenses that may occur once every two or three years, in other words recurring charges, not exactly depreciation but they may be extra expenses that may be, that may recur from time to time.

A No, except for the uncertainty of the amount of them, I do not think that the fact that they only occur periodically affects the risk. If you knew exactly when they were to occur and the amount of them, then there is no risk involved.





Andrew Stewart,  
Cross-Exam. by Mr. McDonald.

- 4490 -

Q Well now I suggest to you that in Public Utility accounting depreciation is foreseen and is provided for ?

A It is estimated.

Q Estimated ?

A Yes.

Q And secondly, recurrent charges are anticipated and provided for ?

A Yes.

Q So that for those <sup>two</sup>/physical hazards the risk is reduced to a minimum ?

A Every possible precaution is taken to meet these.

Q Now then there is one remaining in the question of a wasting asset and that is the depletion ? That is a physical hazard.

Now as I understand your submission depletion may be guarded against by making a conservative estimate of the total reserves, taking gas for instance in the field ?

A I hope I did not say quite that, did I ?

Q No you did not say that, no, but I am suggesting to you that would be one way to take care of the matter of risk arising out of the matter of depletion ?

A Well if the best judgment that you can get is that the probable life of the field, and I am using this without any knowledge of the particular situation, is say twenty years, and you say well to be safe and conservative, although why we should be I do not know, we will call it fifteen years. Then the risk is reduced. The twenty years implies that it might range anywhere from fifteen to twenty-five, but on the basis of probabilities we take twenty. Then if we go further, and like to be safe we will take fifteen. Then you do reduce the risk.





Andrew Stewart,  
Cross-Exam. by Mr. McDonald.

- 4491 -

Q Now I mentioned that because yesterday Mr. Chambers raised the point that where you are taking depreciation on a through-put basis the conservative estimates of the reserves in this field may react to the detriment of the proprietor of the utility in that the remaining portion of the investment to be amortized would be less than it would be on a greater estimate?

A Yes, and I think in reply I pointed out it would affect the risk and should be taken into consideration in the determination of the rate of the return, if the position is correctly stated that there is a known degree of conservatism in the estimate.

Q The only point that occurred to me Prof. Stewart is that the proprietor could not have it both ways. He could not suggest that the reserves be liberally fixed in order to give him a more substantial rate base and at the same time say that by so fixing it the risk is increased and thereby he is entitled to a larger rate of return in addition to his increased rate base ?

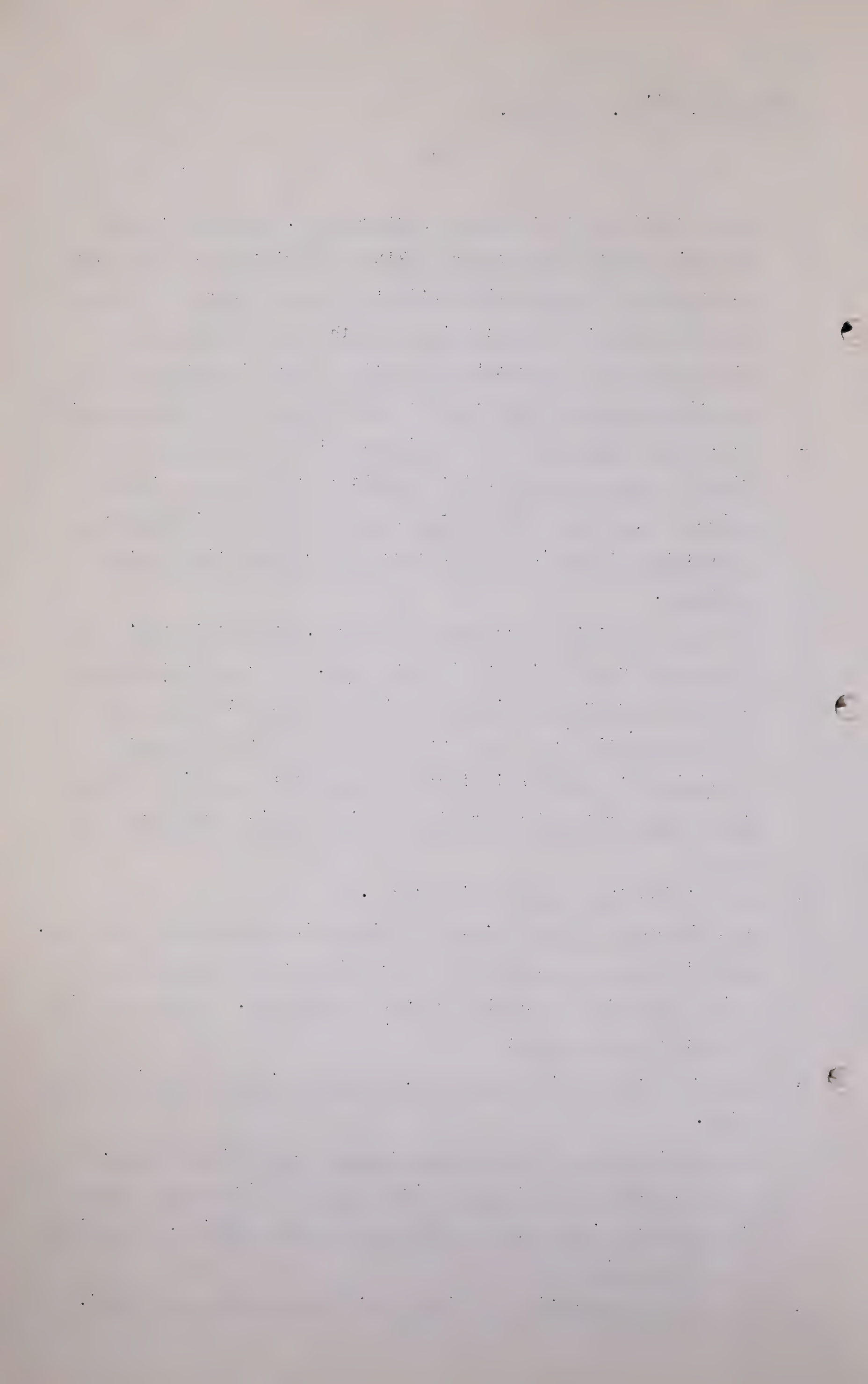
A No I think that would be illogical.

Q Now the other hazard I think mentioned is technological hazards. That is change in methods of processing and handling of the gas ? That is a risk that cannot be foreseen. I mean that is a matter of research ?

A The rate could not be foreseen, therefore there is an inevitable risk.

Q The only thought I had was the compensation for that risk. There could also be technological changes which would increase the serviceability and use and value of the service. The risk is on both sides ?

A That is my definition and interpretation of the word "risk".



Andrew Stewart,  
Cross-Exam. by Mr. McDonald.

- 4492 -

It may involve both gains and losses.

Q And in a rapidly developing science of the treatment of hydro-carbon or do you know anything about that ?

A I am not familiar with it.

Q The next point I suggest the rate of return should include is compensation for investment management. I do not think you mentioned that ?

MR. HARVIE: I did not quite catch that Mr. McDonald.

MR. McDONALD: For investment management.

Q In your examination by Mr. Chambers you thought there should be some compensation to the parties who are actually responsible for the efficient operation of the utility ?

A Again, it is a matter of degree of efficiency. It seems to me that the theory of public utility regulation is that the returns should be adequate compensation for an efficiently managed utility, but some utilities may be more efficiently managed than the level of the efficiency which is implied in the regulation. Others may be less efficient. It appears to me we want to encourage efficiency and therefore, some consideration to compensate for a greater degree of efficiency as an inducement to efficiency should be provided.

Q Now I have heard it suggested that such an allowance should not be made in the rate of return where the common shares or the effective management of the company spread over a large number of shareholders. They are not, the individual shareholder, the investor, is not the person responsible for the efficiency. Is that what you had in mind ?

A Well there are different sorts of decisions which affect the efficiency of the business. Broadly I think we can distinguish between the decisions which have to do with the provision of





Andrew Stewart,  
Cross-Exam. by Mr. McDonald.

- 4493 -

capital. Will I put up the capital for this particular purpose? Now the individual provider of capital has to make that decision and if he shows particular capacity in that field or if he is good at making these decisions, then he is entitled to compensation and we should encourage wise decisions that way by providing in the rate of return to capital some inducement to consider these things carefully. But then there is the other area of decisions with regard to the actual operations of the business and it is quite possible in particular cases that entirely different people are involved in these decisions. Then again if we want to encourage efficiency it is the people who make the actual decisions should be encouraged to make them efficiently by the possibility of a reward for efficiency.

Q Would one way of making that reward be the allowance of reasonably substantial salaries to the executives and managing personnel of the utility ?

A Yes. My view is that the incentive factor can best be dealt with partly in the rate of return because that is what affects the investment and partly in salary bonuses because if the salaried management are the people who are making important decisions in the operation, then that will affect their efficiency.

Q MR. HARVIE: Have you got any suggestions as to how that bonus might be applied ?

A Well my thought of it is this, that, when a particular rate of return is to be allowed that there might well be a margin above that within which at least a proportion might be retained as a reward to capital. Further than that, if we can pick out any particular business people on whom a large degree of responsibility for operating decisions lies, I think that if the





Andrew Stewart,  
Cross-Exam. by Mr. McDonald.

- 4494 -

operations in the particular year have proved successful that some credit for that goes to these people and that out of the additional returns over the allowed<sup>an</sup> amount might be distributed in bonuses. Now the effectiveness of that would depend upon establishing things beforehand. I mean you do not get increased efficiency by paying people after results. It is the promise of it beforehand which we imagine is the effective factor. But if it were known that if the returns exceeded a certain amount out of that excess some part at least might be retained by capital and that some part would be used to bonus management for successful performance of its part of the business, that would I think be the incentive factor.

Q MR. McDONALD: Now these factors that we have mentioned Prof. Stewart, which are the bases for the consideration of the rate of return are these the same factors that an investor buying bonds, preferred shares, common stock on the market, would take into account ?

A Yes, differences in the risks involved in the different types of investment.

Q Would it be fair to say instead of making an analysis in detail such as we have done, that the average investor would exercise what might be called his business judgment ?

A He has to use judgment in making a comparison.

Q Would not his judgment be based on two main points so far as an investor is concerned. That is, first, the certainty of income that he is going to receive from his purchase, and secondly, the security of the principle of his investment ?

A I think that they are so closely tied up together.

Q Well they are the two thoughts that any investor really has ?

A Yes.



Andrew Stewart,  
Cross-Exam. by Mr. McDonald.

- 4495 -

Q First, is he going to get some of his interest, and secondly, is he going to get his money back when he sells his stock ?

A Yes.

Q Now in ordinary business and including utility business, the dividend policy influences the investor's business judgment as to his purchase ?

A I should think it probably does. That is what you mean is that if he sees that a company has been declaring a certain rate of dividend that that would affect his judgment as to the value of the stock ?

Q Yes.

A I would think it would be a substantial factor. The wise investor would look further than that.

Q Yes, he would look to the earnings, the total earnings ?

A Yes, he would want to inspect the position of the Company in greater detail than merely looking at the dividends.

Q He would look to the division of the total earnings as between dividends and money held for surplus or reserves ?

A He would do at least that or perhaps more.

( Go to Page 4496 )



1. The first part of the paper is devoted to a general discussion of the problem.

2. The second part is devoted to a detailed analysis of the case.

3. The third part is devoted to a discussion of the results and their significance.

4. The fourth part is devoted to a discussion of the conclusions and their implications.

5. The fifth part is devoted to a discussion of the future work and its prospects.

6. The sixth part is devoted to a discussion of the bibliography and its relevance.

7. The seventh part is devoted to a discussion of the appendix and its content.

8. The eighth part is devoted to a discussion of the references and their sources.

9. The ninth part is devoted to a discussion of the acknowledgments and their role.

H-2-1 10.45.a.m.

Andrew Stewart,  
Cross-Exam. by Mr. McDonald.

- 4496 -

Q And you would agree that it would be imprudent for most enterprises to put out the total of their earnings in dividends?

A As a general principle, yes.

Q As a general principle reserves or surpluses should be established?

A Yes.

Q Now, I will deal with that question again. Another factor, the investor has in mind is marketability of his purchase?

A Yes, that is true.

Q In other words, he can sell it when he needs the money and get his principal back?

A Yes, it depends to some extent - as a generalization, yes. Some people are looking, of course, for a permanent investment and that factor would be then a small consideration to them. Other people might be wanting more liquid investment, and the chances that they would want to withdraw their funds would be greater.

Q Yes. Investors who are in the nature of established trust and insurance companies, possibly banks, non-commercial banks, they are in the habit of looking for long-term holdings?

A Generally speaking.

Q And not interested in marketability?

A Yes. Banks look for liquidity.

Q Now, then, have you any measure of how the investor appraises that security? Well I will just tell you what I have in mind, the term used is that "the measure of the investor's appraisal is the capitalization rate"?

A In the case of long-term investments, assuming rational conduct on the part of investors, it is reasonable to suppose that the anticipated earnings, subject to definition of that, the anticipated earnings are the main factor in determining the





Andrew Stewart,  
Cross-Exam. by Mr. McDonald.

- 4497 -

present value of long-term securities.

Q That is, in respect to bonds and preferred shares it would be determined by the yield at the market price, in ratio of the income?

A I would say - would you mind repeating that?

Q Yes. With regard to preferred stocks and bonds, the capitalization rate is expressed by the yield at the market price, that is, you would take the yield?

A Suppose it is 5% preferred stocks?

Q As against the price that you paid for it, the dividend as against the price would give you your rate of return, would it not?

A Well, if you expect to get 5% on it, then the value of 5% preferred stock is \$100.00.

Q Yes?

A But if you doubt the probability of getting 5%, then the market value of the stock would fall.

Q Yes. And that would apply to common shares that were paying dividends too?

A Yes.

Q Now, would you say that the price at which the utility sold its securities, that is, on the initial offering, and the price at which they are currently being sold in the market, being sold in the market, has any significance with regard to the fixing of the rate of return?

A On general principles I wouldn't consider that.

Q What I had in mind was this, that if the bonds were issued at \$100.00, bearing 6%, supported by a rate of return of 8%, that was the initial basis of the offering to the public, the fact that the bonds were freely marketable at a subsequent date at say one hundred and eight, that would be an indication



Andrew Stewart,  
Cross-Exam.by Mr. McDonald.

- 4498 -

that the investing company thought that the 8% rate of return would be adequate?

A We are assuming that the utility is under regulation the whole time?

Q Yes, assuming that the utility is under regulation the whole time?

A Yes, it would be an indication of the public confidence of the conditions prescribed in the regulations.

Q The rate of return would be sufficient for the company's purposes?

A It would be an indication of the public reaction too.

Q Now, is a price of one hundred and eight a fairly high price for a utility bond, or are you competent to tell us that?

A I would not care to say.

Q You would not care to say?

A No.

Q Now, in our previous discussions, Professor Stewart, it was outlined to us that utility capitalization is often divided into two sections, senior securities and junior securities, and the senior are those that are preferred bonds and the preferred shares. Now I suggest to you that the bondholder and the preferred shareholder sacrifices, for security, a greater return on his investment?

A I think he is prepared to take the prospect, he is prepared to take the prospect of a lower return because of greater security in his case.

Q Yes?

A Because they are senior and have the first claim on earnings, and therefore the risk is reduced in comparison with the junior securities. Therefore, you would expect to find the necessary rate of return with regard to the senior securities being less than the necessary rate of return.....





Andrew Stewart,  
Cross-Exam. by Mr. McDonald.

- 4499 -

Q With regard to the common shares?

A Yes, with regard to the common shares.

Q Now, if there are no bonds or preferred shares and the capitalization is entirely on the common stock, the common share basis, there is no differentiation?

A No.

Q Between those securities ?

A No.

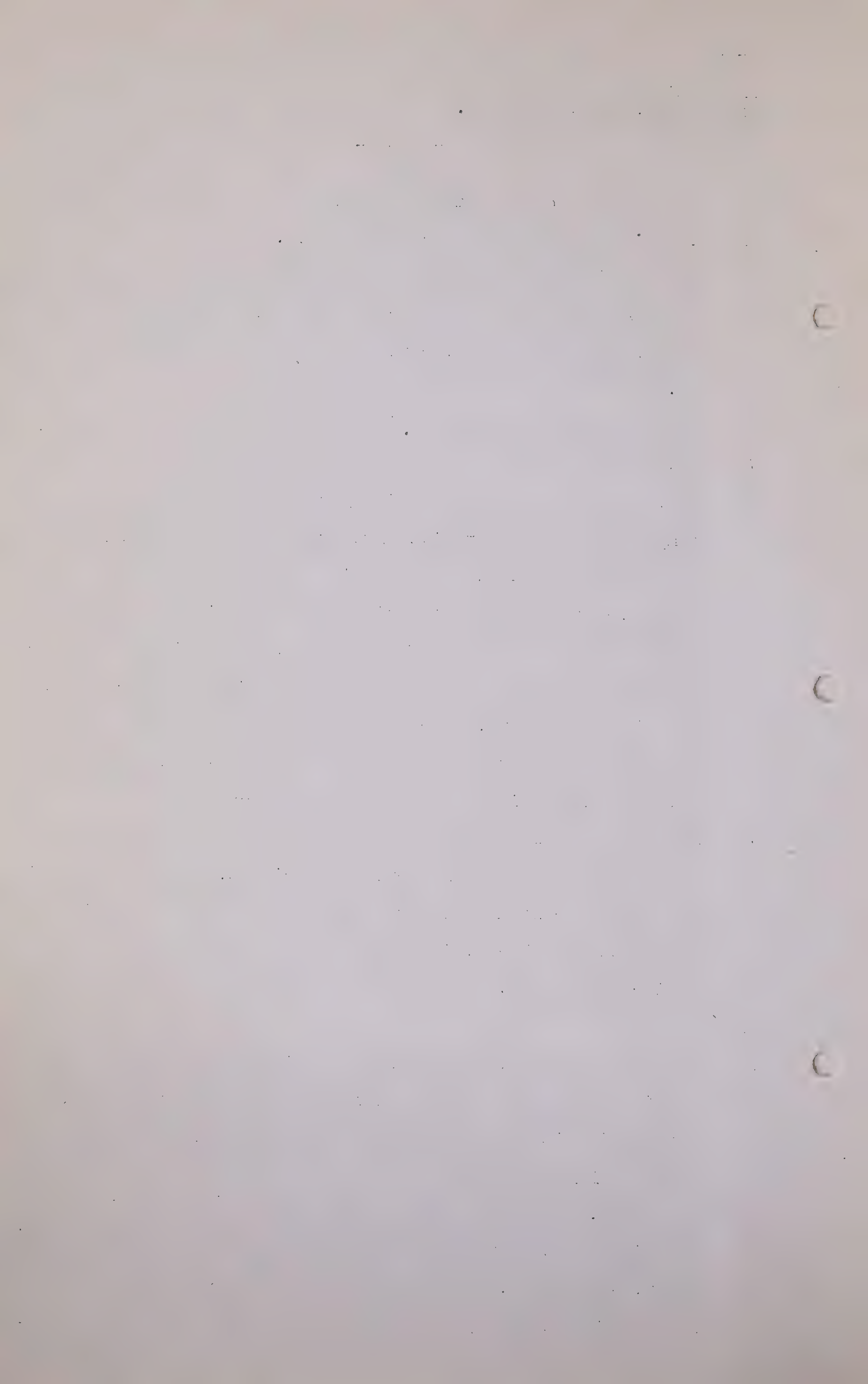
Q Now, what I am thinking of is where are you going to find the comparative or alternative investments of our particular situation here? And I suggest to you that if we are going to make any comparisons as between the situation, that is only common shares, would the rate of return for instance, or the income that may be received by the investment in public funds in securities of the utility company, which is a diversified method of financing, we also have to assume in our case here a similar diversified method of financing to make the comparison?

A Either that or perhaps we could simply get at it this way, that where there are no senior securities, other things being the same, the risk to the shareholders who call themselves common stock holders, is reduced because there are no senior securities.

Q Yes?

A On the other hand, I would say that if normally under public utility financing it was customary to have a diversified, a diversification of investments, that that might reasonably be taken into account.

Q Yes. Now, would it be fair to say that in the sources of funds, that is the sections of the investing that the public are interested in, securities, that there is one portion who are looking for certainty of returns and willing to work for sub-





Andrew Stewart,  
Cross-Exam. by Mr. McDonald.

- 4500 -

sistence returns only, that is, a reasonable amount of interest, as contrasted to the venture or speculative investor who is willing to accept risks with the hope of unusual gain in relatively short term investments.

A There are differences of people with regard to the type of investment.

Q Those are the two main differences, are they not?

A Yes, some people for various reasons prefer safe investments; other people like to take chances.

Q Now, would you say, Professor Stewart, that the risk varies with the size of the enterprise?

A Not as a generalization, no.

Q Now, have you any experience with the obtaining, or maybe I had better put it this way, Professor Stewart, an enterprise which is spread over, an undertaking which is spread over a considerable area, different types of resources in that area, would be a better risk than one.....

A Diversification of investment itself reduces the risk, so that if you were operating over a large area where there was a diversity of conditions.

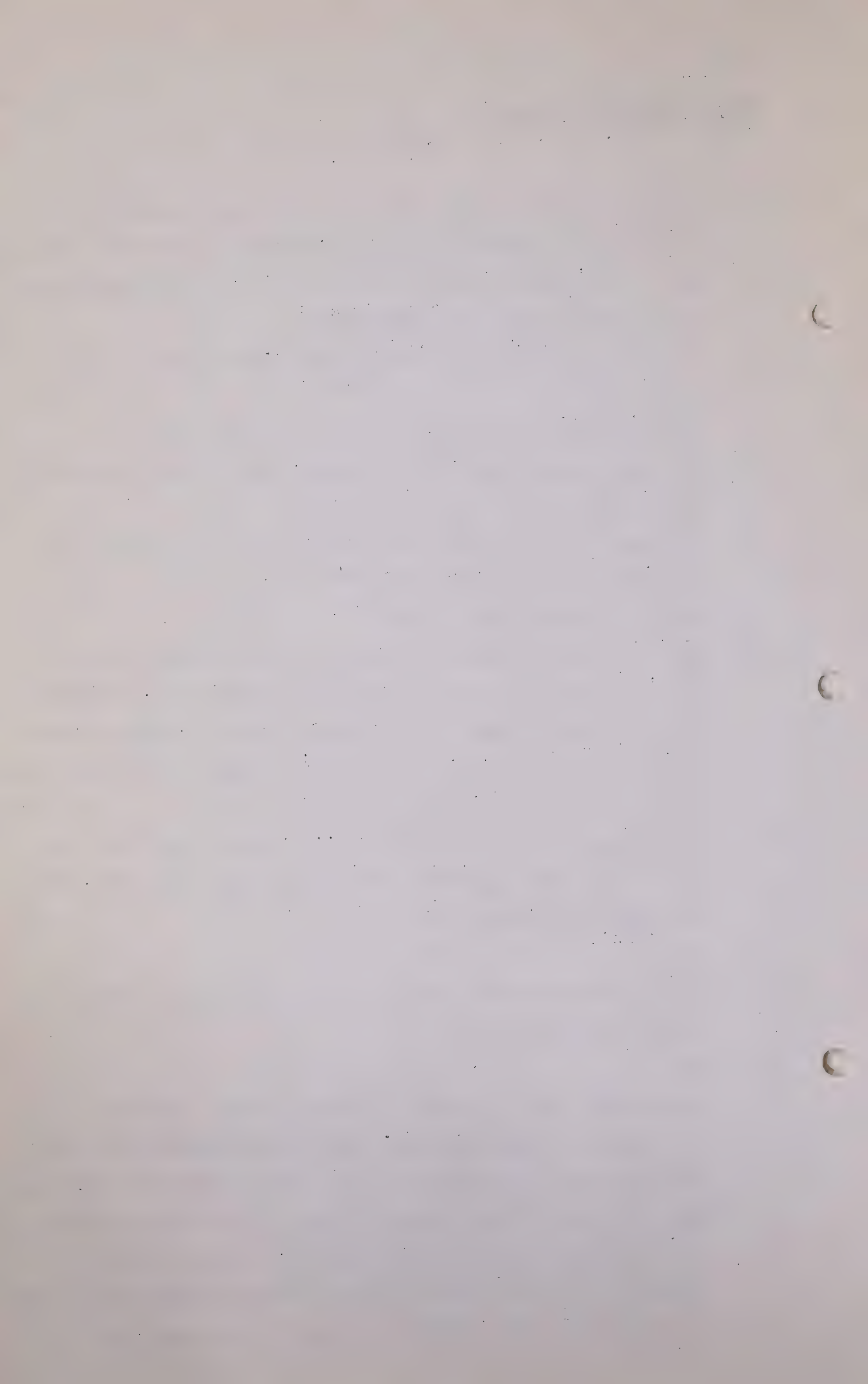
Q Yes?

A So that one area may be affected by favourable conditions and another by unfavourable?

Q Yes?

A These things tend to balance. Where you are operating in an area where the conditions are similar, and assuming that the level of risk is the same, that is a more hazardous situation?

Q Yes. But what I have in mind is this: Is it fair to look at the return received by investors in a public utility which has a wide diversification of its undertaking, the return there might be less because the risk is less, and that



Andrew Stewart,  
Cross-Exam. by Mr. McDonald.

- 4501 -

it would not be comparable to a public utility which is interested only in one community, say, or one small section of an area?

A That is a nice point. I would like to think about it further, Mr. McDonald. It is quite possible that it is related to efficiency there, because there are certain difficulties, difficulties of management increase with the larger the business and the larger the area.

Q Yes?

A And it is possible that any differential in rate of return might then be properly attributable to the ability of the management and the efficiency of the organization which is able to overcome the difficulties of large scale and large size and large area and still operate efficiently.

Q What gave me the idea, Professor Stewart, so that you will know what I am talking about?

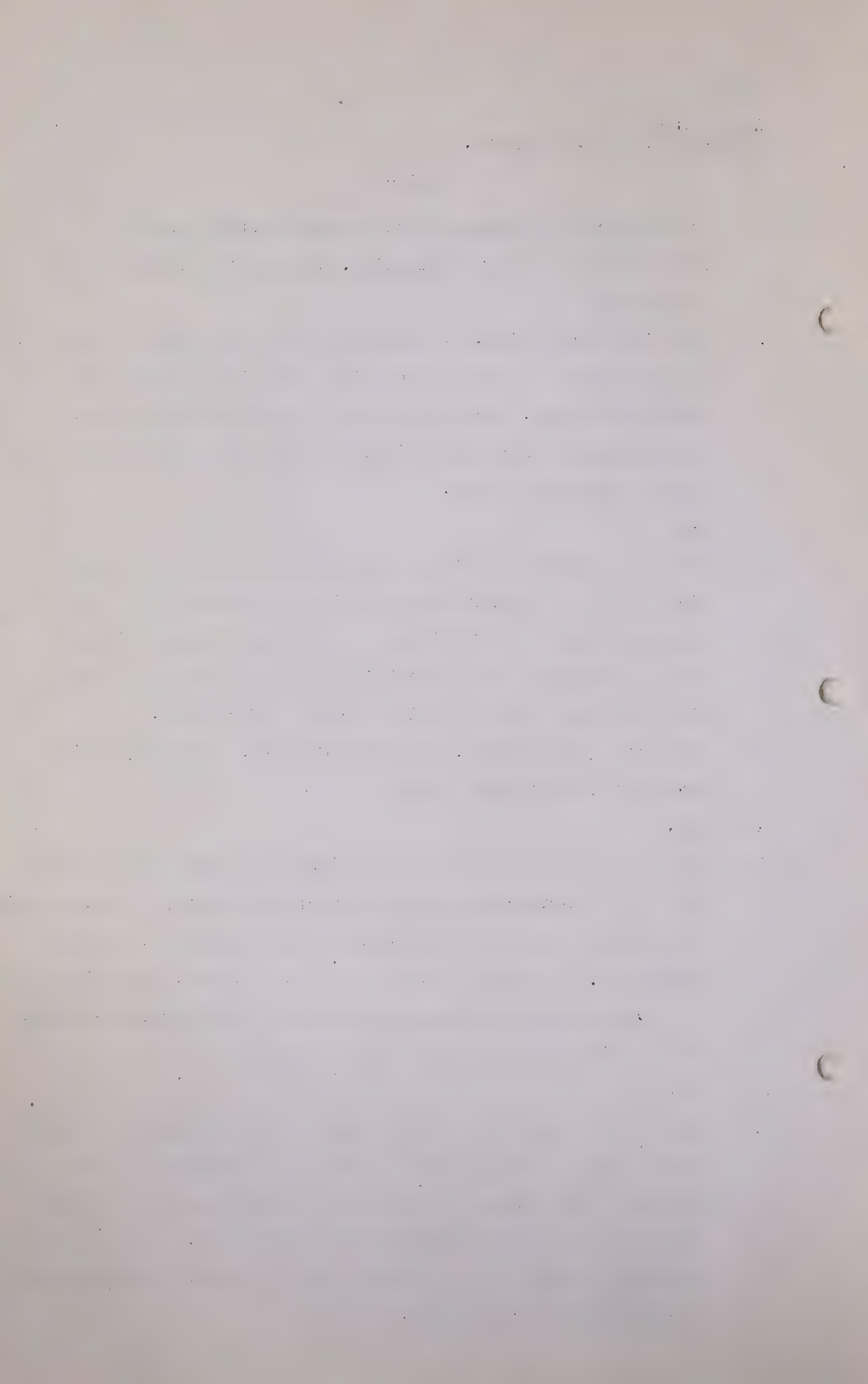
A Yes.

Q That in fixing the rate of the return for a telephone company, which was a comparatively small telephone company, the suggestion was made that the risk was greater for the small telephone company whose business was in a part of a state, as against the larger telephone companies which had considerable sections of the United States under their control?

A Yes.

Q And it was suggested that it would not be reasonable to look at the chart of the ups and downs of the investment of the different sections and the different segments of the business, the larger telephone companies were eliminated, and only the telephone companies who have had smaller areas, and similar types of business were considered.





H-2-7

Andrew Stewart,  
Cross-Exam. by Mr. McDonald.

- 4502 -

A I would agree that the risk is reduced by operating over a diversified area.

Q Yes?

A I would like to think further about the implication of that.

(Go to page 4503)





T-2-1 11.00 A.M.

Andrew Stewart,  
Cross-Ex. by Mr. McDonald.

- 4503 -

Q And this is all subject, I think you have set out in your submission, that there is no basis for the setting of a uniform rate of return for all utilities in a jurisdiction, that each utility even though in the same jurisdiction should be treated on its own merits.

A The risks might be quite different. Conditions might be substantially different within a different operating area.

Q Now I am still thinking of comparable investments. Have you any suggestion as to what is a guide to comparable investments in our particular case?

A I am afraid I cannot be very helpful about that.

Q My suggestion to you is this, that we have not a well developed utilities market in Canada.

A That is correct.

Q I mean the number of utilities is not extensive.

A Yes.

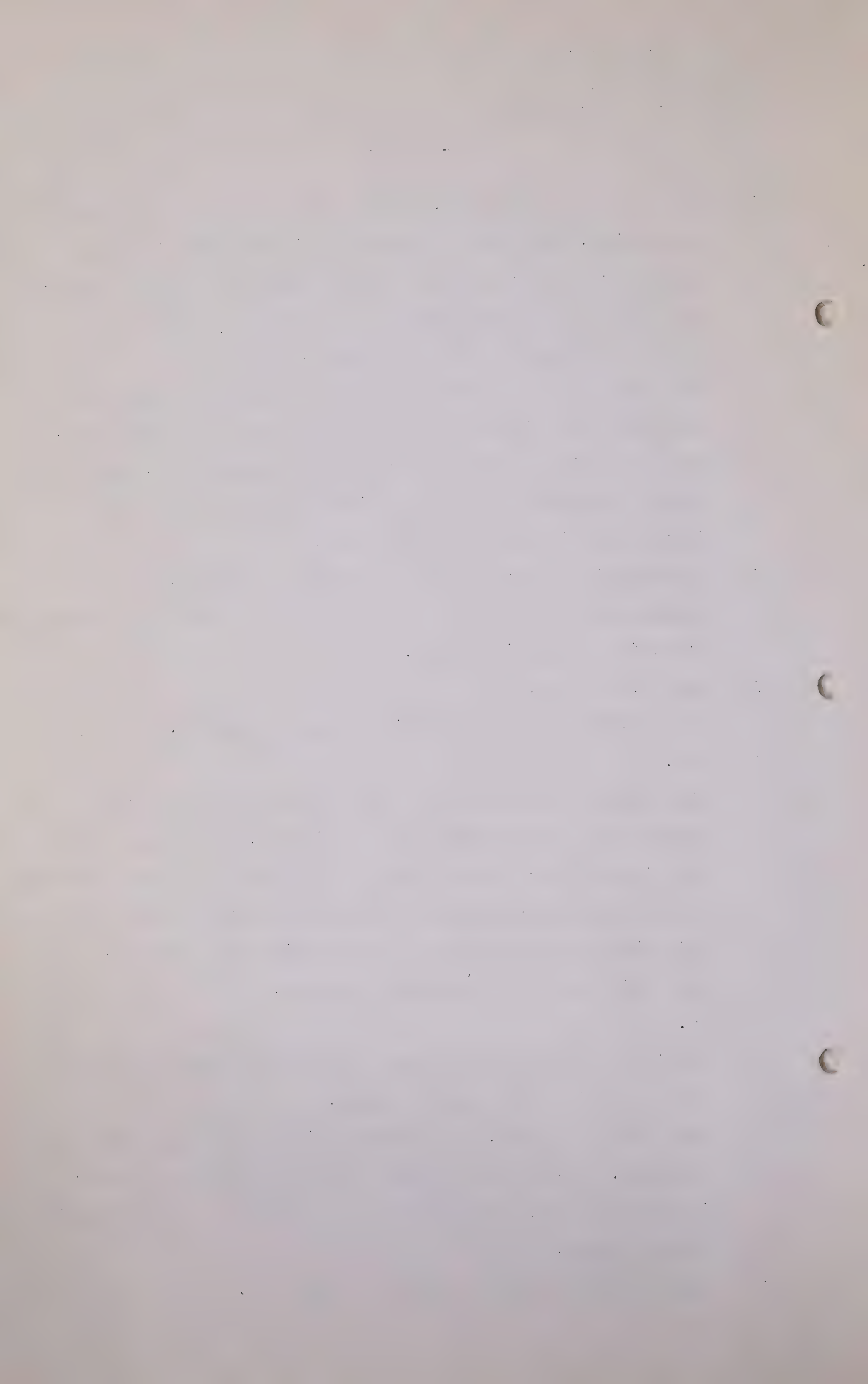
Q The number of utilities that are actually financed with reference to public exchanges is limited. Now would it be fair then in our case to look to the earnings and the attitude of the investment public to other well-established businesses which have the elements of necessity to the community. What I am thinking of is a grocery business.

A No.

Q Dealing with a stable business that we are always going to eat. That is what I have in mind.

A Actually, I believe, the retail business is a very hazardous business. It is true it is one that is necessary and it is carried on continuously, but the turnover of proprietors is very rapid.

Q Could we refer to the liquor business?



Andrew Stewart,  
Cross-Ex. by Mr. McDonald.

- 4504 -

A I would not know anything about that.

MR. CHAMBERS: The service has deteriorated.

A I would go so far as to say that in unregulated competitive business I think the risks generally are greater than under regulation and certainly in making any comparison with returns in unregulated competitive businesses, I think that factor should be taken into account.

Q MR. McDONALD: What I had in mind was - well there is one other thing I would like to ask you about. What about elevator companies, wheat elevator companies?

A In terms of risk?

Q In terms of risk, yes.

A As I understand their basis of operation at the moment, they are not much more, in fact, than agents of the Dominion Government and that certainly reduces their risks.

Q I am just referring to that group you would say had a more hazardous risk than the utility business, the liquor business and the grocery business, and the retail store and retail investments generally.

A I would say retail investments generally, yes.

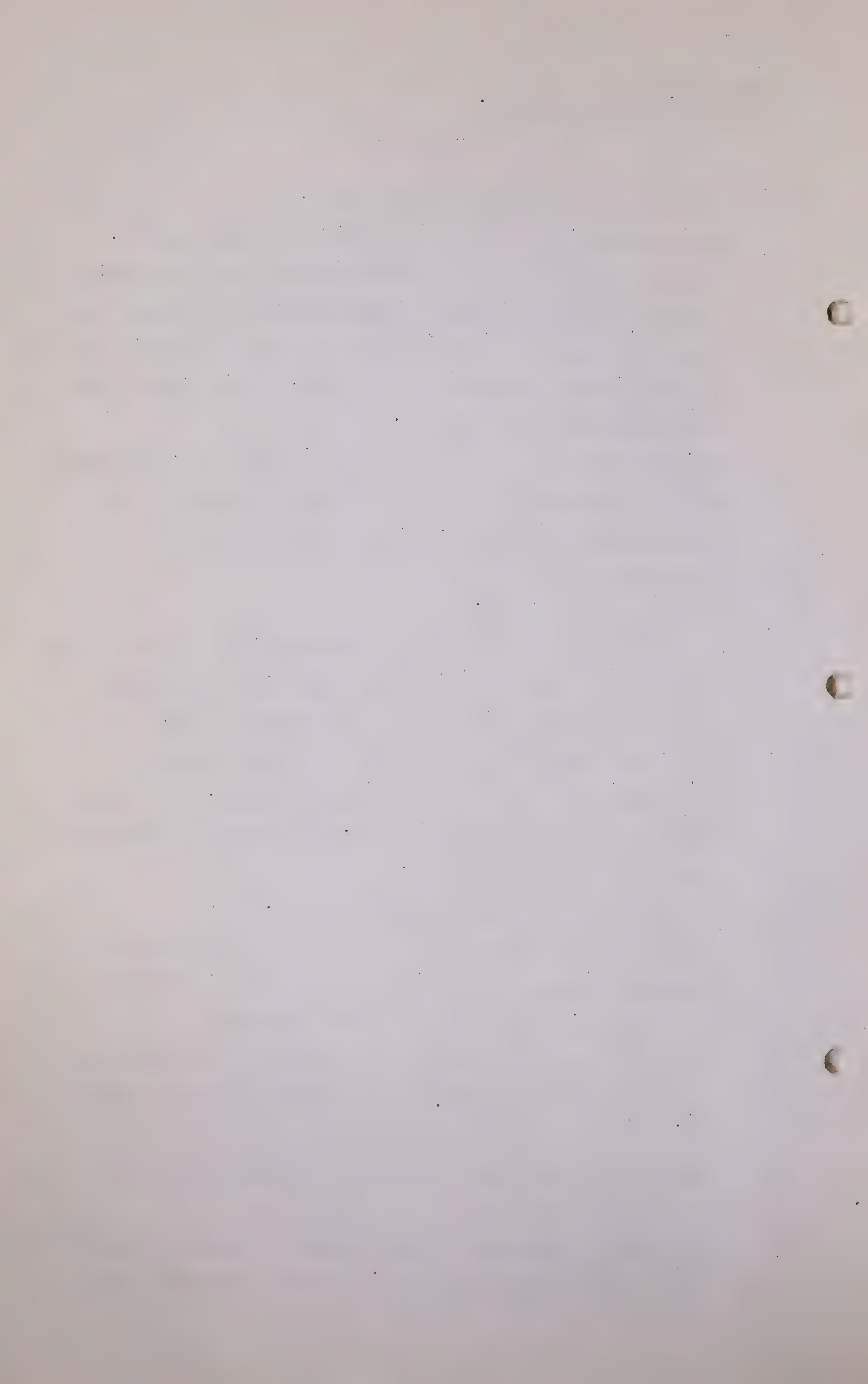
Q And that type of investment, I suggest to you, is the investment sought by that second group of investors that I referred to, venture or speculative capital.

A People who are prepared to take chances, it is people with a speculative nature who will go into that type of investment.

Q Would it be reasonable in our case to look to telephone utilities?

A Well you are getting, I think, closer to comparable conditions. And yet they are certainly not the same conditions. You





Andrew Stewart,  
Cross-Ex. by Mr. McDonald.

- 4505 -

have of course in the one case the expectation of continuity of life and in the other you have the problem of a wasting asset. I do not know whether the rates of technical change are likely to be more rapid in the one field than in the other, one area than the other. But merely because they are in some respects, I think they are closer than the other.

Q The same applies to electric light companies?

A Well then you are then comparing regulated enterprises and they are comparable on that basis. But there still might be differences between them in degree of risk involved.

Q They are the type that would attract the investment type of capital rather than the venture or speculative type of capital.

A I think the hazards are generally less and I think that would tend and be regarded as a relatively safe investment and would therefore attract the more conservative type of investors.

Q Now there is the question of alternative opportunities that you mention at page 21 I think it is. Would you include an investment by a company in its own merchandising business as contrasted to its investment in the utility business, such as we have here, as an alternative opportunity?

A Of course if it is going to carry on a business, then there is certain merchandise which it has to have and that is a part of the total business.

Q I will just explain to you the problem that we have.

A Yes.

Q The British American Company has introduced evidence to the effect it has earned over a period of time approximately nine point some per cent by the use of its capital in its





Andrew Stewart,  
Cross-Ex. by Mr. McDonald.

- 4506 -

general business of merchandising. Now as a part of this undertaking in Turner Valley the British American Company has invested maybe \$600,000, some appreciable amount of money in the public utilities. Now as an alternative to that . . . . and this money was invested out of its common funds of the company. What comment have you on the suggestion that because that money could have been used in the general merchandising and manufacturing processes of the company and earn possibly nine per cent, should they also now receive for the public utility a similar return?

A No, I would not conclude that. It is true that opportunity exists but they are not comparable alternatives.

Q They could have as well invested the \$600,000 . . . . .

A You might as well include Dominion Government Bonds as alternatives but they are not a comparable investment.

Q They might have invested it in other enterprises, such as a refinery somewhere else and lost it entirely?

A Yes. Or made a large profit.

Q Yes, or made a large profit. Now let us deal with this question of income tax. You suggest in your submission that where the taxes are paid as an operating expense it is an item to be borne in mind in fixing the rate of return.

A The rate of return after payment of the tax, yes.

Q Now if, because of the type of capitalization of the company, I refer to the fact that capitalization is entirely by common stock and not by senior and junior securities whereby bond or preference share interest would be deducted from the income tax . . . . .

MR. CHAMBERS: Are you making that statement? Not preference shares. I think you should put it to him right.



Andrew Stewart,  
Cross-Ex. by Mr. McDonald.

- 4507 -

MR. STEER: Bond interest.

A Bond interest is deductible as an expense.

MR. McDONALD: Yes, bond interest only is deducted.  
Now what was my question?

BY THE REPORTER READING: Q. Now if, because of the type of capitalization of the company and I refer to the fact that capitalization is entirely by common stock and not by senior and junior securities whereby bond or preference share interest would be deducted from income tax . . . . .

Q MR. McDONALD: I refer only to bond interest and the rate of return reflecting the benefit that is being received by the investor, in this case the parent company.

A Well, in general, I would think in that case that I would favor the principle of leaving the problem of financing to the company. That is, I take it, that generally speaking a company will try to get its funds on the most favorable market and under the most favorable terms. Therefore I think it would be a bad general policy to interfere with the financing. I would take it that in the determination of the type of securities to be issued that one of the relevant considerations would be the tax structure and its effect on earnings. So that I am inclined to think that might be considered. I would go on to say, however, that knowing only little about the particular circumstances of this case and my knowledge may be quite inadequate to apply this to the particular case, where a holding company issues capital, provides capital to a subsidiary, what they call the stock might be anything. You can call it common stock. But they have not had to go into the market with that stock or they have not had to try and raise their





Andrew Stewart,  
Cross-Ex. by Mr. McDonald.

- 4508 -

capital by going into the market, so that market considerations are irrelevant and I do not know on what grounds you might call it one thing or another.

THE CHAIRMAN: I think, Mr. McDonald, we will give Professor Stewart a rest.

(At this time there was a short recess.)

Q MR. McDONALD: When we adjourned, Professor Stewart, we were dealing with the incidence of income tax with relation to the type of security, the type of financing of the utility and I think you had answered a question that the regulatory body should not interfere with the incidence of income tax with regard to the . . . . .

A Not interfere with the type of financing, the methods of financing.

Q Yes. I am suggesting to you, however, that the consumer is entitled to expect that the utility would be financed on a reasonably favourable basis to the consumer.

A That is the basis of my conclusion that I would expect the utility to adopt the cheapest methods of financing.

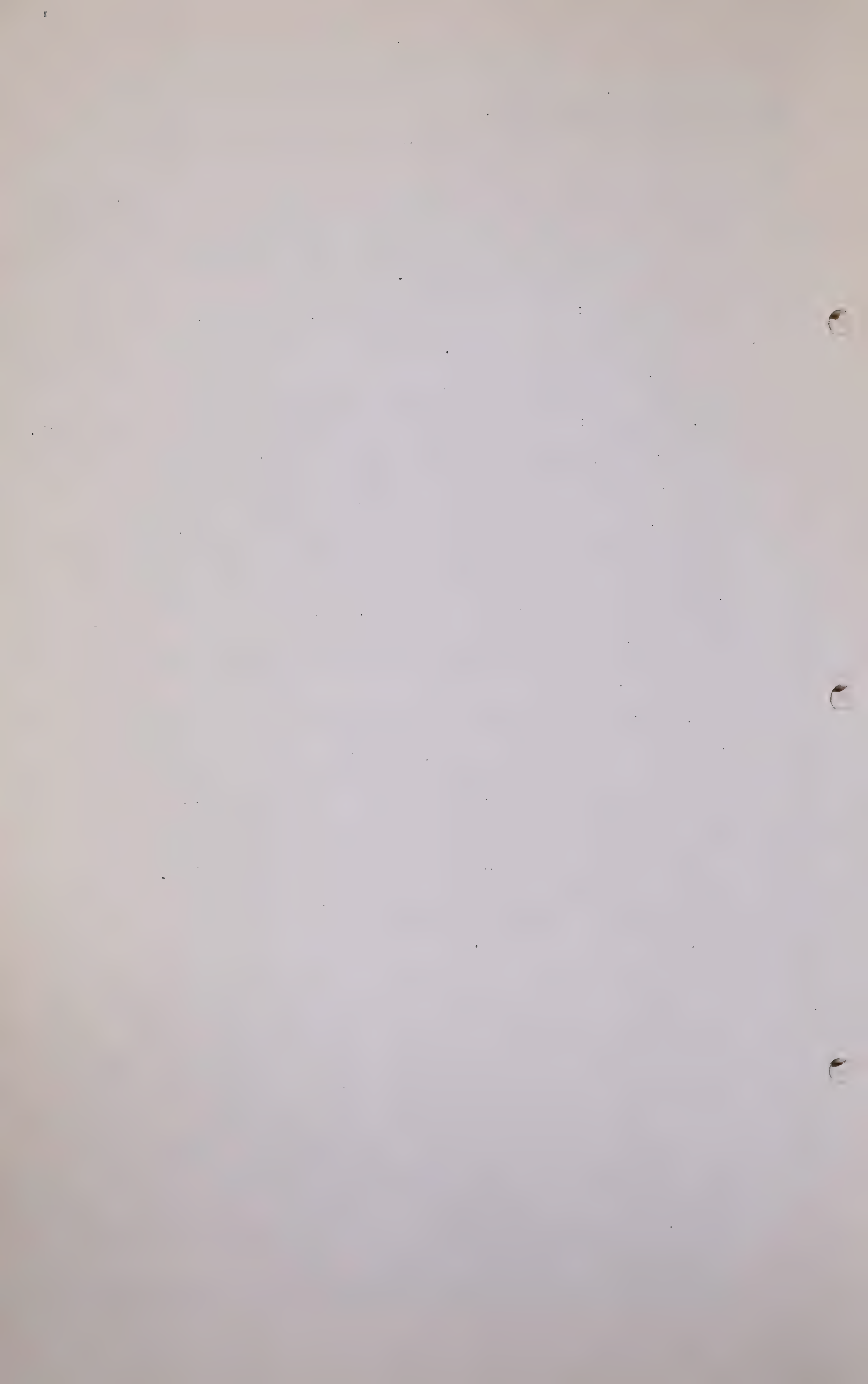
Q Insofar as the consumer is concerned?

A Yes.

Q I am glad you make that statement because I had understood your answer previously to be that the proprietor or the investor was the one who had the option to determine which would be the most favourable type of investment.

A I do assume that that is so. I go further and assume that under conditions of free competitive investment, that the individual investor is looking for, or the proprietor is looking for the cheapest sources of funds.

Q Yes, but from the consumer's standpoint in the final analysis





Andrew Stewart,  
Cross-Ex. by Mr. McDonald.

- 4509 -

he should get those funds from the most favourable and under the most favourable terms to the consumer as possible.

A Well I would think - I mean that in effect, yes. That is what I mean in effect.

Q So that if the incidence of income tax charged as an operating expense is less favourable to the consumer and more favorable to the investor that is an element that should be taken into account in fixing the rate of return?

A Yes.

Q Now just so it will be clear for the record, Professor Stewart, in fixing a rate of return, it is the one general rate which will create a common pool and from that common pool different types of securities secure their return, their interest as it were.

A That is customary.

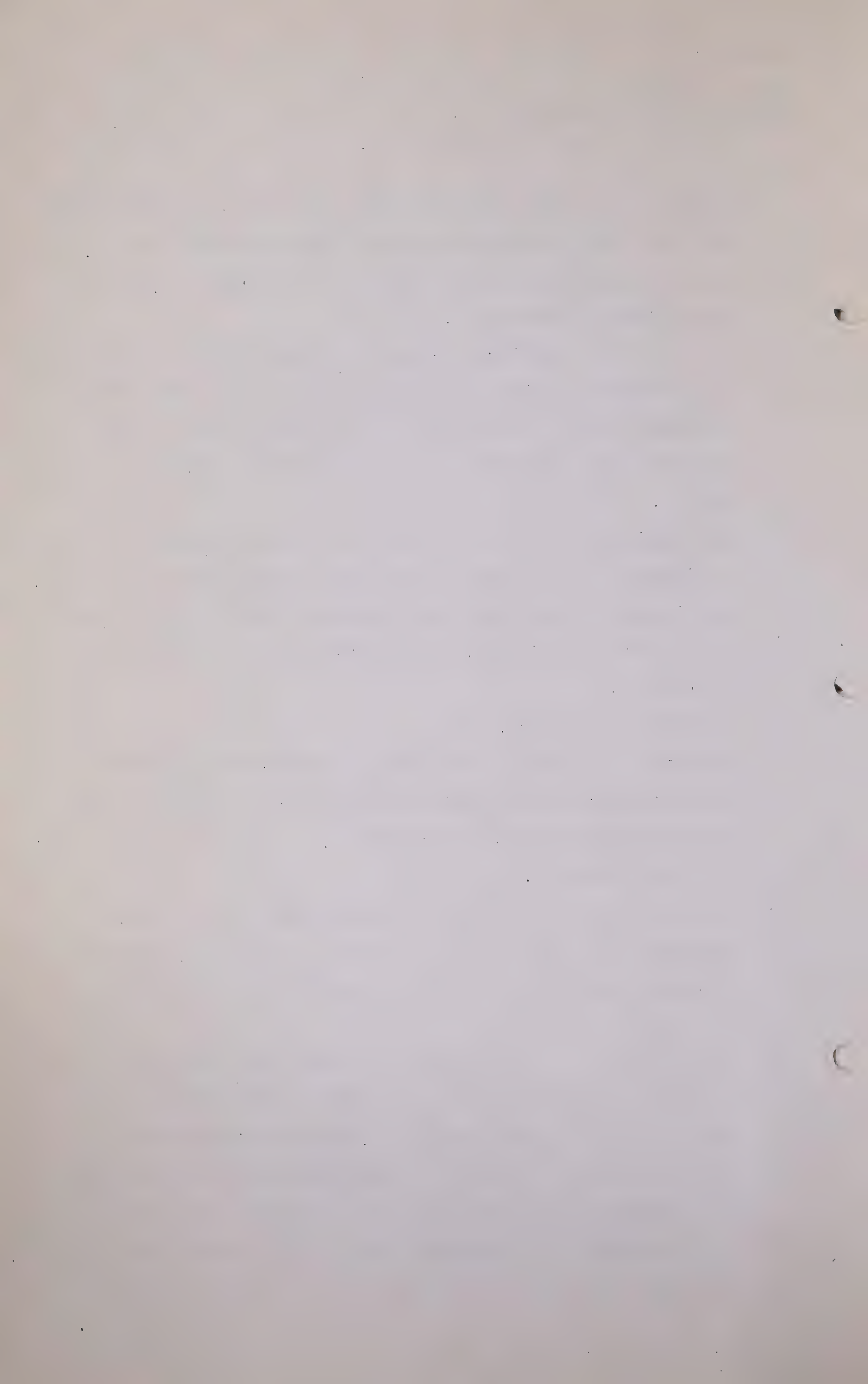
Q That is to say bonds secure their interest and preferred shares receive their fixed dividends and the common stock then secures or takes the balance.

A That is correct.

Q Now do you suggest that in the case where there is only one type of financing, that is share financing, that any consideration should be given in the fixing of the rate of return?

A Well I think as I suggested before that where there are no secured securities the risk, other things being the same, would be reduced by that. One of the effects of the over-all rate of return under public utility regulation, where you have both senior and junior securities, is to make return to the junior securities highly irregular.

Q Yes. For instance, we have some evidence that Winnipeg



Andrew Stewart,  
Cross-Ex. by Mr. McDonald

- 4510 -

Electric common has not received a dividend for some time. That is the incident to which you refer? Winnipeg Electric bonds have been paid their return, the preferred shares have been paid their fixed dividend but the common have not received a dividend for some time.

A That might be because of the fact that the Winnipeg Electric, like other street railway companies, is just facing the effects of obsolescence.

Q Or on the other hand they might be creating a surplus account for re-investment?

A That is possible. I would not know without investigation.

(Go to page 4511)





C-2-1 11.30 a.m.

Andrew Stewart,  
Cross-examination by Mr. McDonald.

- 4511 -

Q Now let us deal with this matter of surplus account and the accumulation of depreciation reserves.....

A Might I say with regard to this question, this is a matter that I would rather that I were an accountant if I would express an opinion. On the whole it is a field that I think an accountant would be better able to deal with it than I can.

Q Yes, but I am only thinking, and I am only directing my questions to this set of circumstances, at least I am in this particular case, and I will give you the facts as I see them, - we have one utility here which, as far as I personally see now, is going to make one investment. They put in their whole installation now and it is built and finished and that investment will be retired on a throughput basis or a straight line basis over the life, over a stated period.....

A This is a new investment to be made?

Q To be made and is made, yes.

A Yes.

Q Now I suggest to you that in that case the moneys which will be amortized and set aside as a depreciation reserve can be withdrawn immediately from that company because there is no future reinvestment by that company in this venture?

A It certainly can be and I would think it would be wise to do that.

Q Yes, in this particular case?

A Yes.

Q So so far as fixing the rate of return for the B.A. utility, there probably is not the problem of recurring new capital involved, there is not, the alternative use does not arise in the minds of the executive of that company?

A I see your point.

Q In other words, they are not leaving their money there, they





Andrew Stewart,  
Cross-Exam. by Mr. McDonald.

- 4512 -

can immediately take their money out and apply it immediately to that alternative use?

A Yes.

Q And there is no question of any new project, so I suggest to you that there is not necessarily to be placed in the return the rate of return to the B.A. utility, the incentive for new capital. Now before you answer that maybe I should give you the next step?

A Yes.

Q In the Madison case we have a company that has an initial installation but the prospect is, as the years go by, further installations will be made to take care of the depleting gas, and for the pressures with which the gas is being handled and in that case a portion of the surplus account, the depreciation reserve, I suppose, would be a better term, could very well be kept available for new investment to provide the additional equipment required to take care of the declining pressures for instance. Now I suggest to you that in that case the question of alternative use arises, the executive must necessarily say "Shall we take our money out and invest it somewhere else, or should we leave it in and invest it in this new, the new additional equipment required".

A Might I advert to the first proposition, you are beginning with the problem of regulation now.

Q Yes?

A Where regulation is now going to be applied.

Q Yes?

A Has the British American already been installed?

Q It is installed under orders of this Board?

A Under orders of the Board?

Q It has been done with the expectation of regulation and under regulation?



Andrew Stewart,  
Cross-Exam. by Mr. McDonald,  
- 4513 -

A Then I would think.....

MR. HARVIE: Anticipating and by agreement,  
that we would go ahead in advance of the order.

MR. McDONALD: Yes.

MR. HARVIE: That there would be a subsequent  
order, I think is a fair way of putting it.

MR. McDONALD: Yes.

WITNESS: My answer would be, it seems to  
me in fairness to the investors in that case, they should be  
treated on a comparable basis with the others.

Q That is.....

A That is if you use a reasonable rate of return or capital  
invested, - in this sort of enterprise, - is this amount,  
the fact that the British American is being required under  
order to do this, would seem to me to reach the conclusion that  
in fairness to them they should be treated on the same general  
basis.

Q Yes, and the Madison is the same thing, but the point I had in  
mind is that there might be a difference, that in one case the  
money is retained in the business, in other words, the entire  
return is being retained in the business and it is being reinvested  
in this particular business and in the other case, in the B.A.  
case, the money can be withdrawn and invested in any other  
securities that they wish?

A Well the only significant difference that I can see there would  
be the matter of time which is involved. If in the one case  
the money is going to be withdrawn more rapidly than in the  
other case, then that would affect the risk element.

Q Yes?

A Would affect the risk on the differences in time of the recovery  
in that respect.





Andrew Stewart,  
Cross-Exam. by Mr. McDonald.

- 4514 -

Q Yes, well I think.....

A I am sorry if I have not exactly answered your questions, but it seems to me that is about as far as I can go.

Q Yes, the point is that eventually all of this money will be withdrawn by both companies?

A Yes, where they are both dealing with gas, eventually there should be the expectation that it should be withdrawn and provision should be made for the withdrawal of it.

Q Yes?

A It is the matter of the time at which it can be withdrawn.

Q Yes, and is it suggested that the lesser the time the less risk?

A That would be my conclusion, yes.

Q Dealing with that point again if you recollect Mr. Steer raised, brought up the difference between the utility that is perpetual, as it were, as against an utility which has an indefinite life, because of the fact that it is geared to a wasting asset?

A Yes.

Q The risk, there is a difference in risk, is there not, from the investor's standpoint?

A Again the time element would be involved. In the case of continuing operations, presumably the capital would be continually used. There is, of course, the further consideration there of the possibility of the disposal of the security for the individual, which would tend to, I think, offset the longer time factor, because after all the investor, who holds a security in a proposition, he can himself recover his investment at any time.

Q Yes, the continuing security is the more marketable, is more marketable, that is that element of marketability which I referred to previously this morning?

A No, I do not think so. I am merely pointing out that in any





Andrew Stewart,  
Cross-Examined by Mr. McDonald. - 4515 -

case where securities are bought and sold on the market, the individual investor can himself recover his capital. That is he himself can do so within the time.

Q From the investor's standpoint, there may not be any difference between the two?

A That would tend to reduce the significance of the time factor.

Q But there is the less risk, let me put it to you this way, then, Professor Stewart, if you have one utility involving, engaged in the distribution of gas, with the prospect of more than one source of supply, that is one percentage of risk would attach to this particular operation?

A Yes.

Q And then if you have another utility which is engaged in the transmission of gas from only one source of supply, and there is no other alternative, that is another percentage of risk involved?

A Well it would depend, Mr. McDonald, upon the assurance with regard to the availability of supplies, I mean, if we know in the one case there is only the one source and we know exactly what the amount of that is.....

Q Yes?

A There is no substantial element of risk there, I mean the risk is the uncertainty.

Q Yes?

A Now if we know all the facts there is no uncertainty, but I would say if we are dealing with a situation in which there are known supplies and they can be accurately estimated and we know the rate of use, so that we know how long they will last, if those factors are all known, then the risk is quite small in that case. It might not be worth while to make the investment under those conditions, that is, under competitive circumstances,



Andrew Stewart,  
Cross-Exam. by Mr. McDonald. - 4516 -

you simply would not be able to get the price which would enable you to recover your capital investment over that short period of time.

Q Is not the difference really this difference you mentioned, the one of the perpetual utility as against a limited life utility?

A Well it is a question of certainty or uncertainty.

Q Yes.

A Now I would say that other things being the same, the shorter the period of time the less the uncertainty and risk. We are better able to estimate for the next two or three years than we are looking further ahead, but as a generalization the risk is less for the shorter period of time, but if we are dealing with a specific situation in which the time is short, and we know all the conditions, the risk is again less for that reason because we know all the circumstances.

Q Yes. What have you to say, Professor Stewart, about the types of rate base, - is there less risk where the depreciation is taken annually and the rate base is a diminishing rate base, against the type of rate base which is a fixed rate base?

A My conclusion is that the risk is greater with the variable rate base than the fixed rate base, is that it?

Q No, I am thinking of the depreciation incidents, the depreciation, suppose the rate base, as I see it, is the one we are discussing in this Hearing?

A Yes.

Q The rate base is fixed?

A Yes.

THE CHAIRMAN: That is fixed as to the method.

MR. McDONALD: Yes.

THE CHAIRMAN: By which you arrive at it?

MR. McDONALD: Yes.





Andrew Stewart,  
Cross-Exam. by Mr. McDonald.

- 4517 -

THE CHAIRMAN: But I think your question to  
Professor Stewart is, once the rate base has been fixed, should  
it diminish each year by the amount of the depreciation reserve.

MR. McDONALD: Yes, that is it.

(Go to Page 4518)





Andrew Stewart,  
Cross-Exam. by Mr. McDonald.

- 4518 -

Q In the case of a wasting asset I conclude that should be done.

Q And that diminishes the risk ?

A Yes that is a fact that is provided for and that you are going to be permitted to recover investment that regulation would tend to reduce the risk.

Q Now there is just one other point and that was this obsolescence. As I understand your answer to Mr. Steer. I will put it to you this way to see if my understanding is right. You make allowance for obsolescence when you arrive at your depreciation by inspection or throughput basis and then after you have made that allowance you then take the operating expenses of the modern up-to-date plant as contrasted to the operating expense of this obsolete plant which is being continued to be used and you capitalize the difference into the operating expenses and then you have to deduct that from the valuation again. They are the two steps ?

A Yes if you first depreciate from the appraised value new covers only depletion and physical wear and tear on the equipment, then there is still a further factor of obsolescence to be taken into account. And in the specific case that Mr. Steer gave me I suggested that could be measured best by comparison of operating expenses.

Q Now the problem that I had or I think we have here is that we have a plant, a scrubbing plant that I will give you rough figures on, that is valued reproduction new in the neighbourhood of \$400,000.00. It has been in use for a good number of years. It is depreciated by a considerable number to a value of \$250,000.00.

A Depreciated due to which cause ?

Q Due to wear and tear.



Andrew Stewart,  
Cross-Exam. by Mr. McDonald.

- 4519 -

A Physical wear and tear ?

Q Physical wear and tear and then it is found that a modern plant reproduced and placed in service in place of the obsolete plant would actually cost about \$150,000.00. There is an actual reproduction cost difference there on the valuation of \$100,000 which it is suggested should be the value of the plant, is now down to \$150,000.00. Now it is suggested that the actual operating cost of the old plant will be seven to eight thousand dollars more than the operating cost of this modern plant which would be substituted for that. That has been capitalized on an annuity basis of some \$76,000.00. Would you finally arrive at the amount to be placed in the rate base by deducting the \$76,000.00 from the \$150,000.00 ?

A No.

Q How would it work out ?

A From the \$250,000.00. That is the steps as I see it are these. You have this piece of equipment, its reproduction cost new is \$400,000.00.

Q Yes.

A For physical wear and tear you reduce it to \$250,000.00.

Q That is right.

A Now then beyond that there is the factor of obsolescence and that can be provided for in either of two ways. Either by taking the value of the substitute plant which is \$150,000.00 and saying that is the maximum value for your plant new installed, because you can put in a new one at \$150,000.00. That is one way of doing it. The other way would be to say what is the difference in the cost of operating these and capitalizing you get \$76,000.00 and take that away from your \$250,000.00. Either of these methods can be employed to make



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Andrew Stewart,  
Cross-Exam. by Mr. McDonald.

- 4520 -

allowance for the factor of obsolescence.

Q But you would not apply both of them ?

A No.

Q MR. STEER: May I intervene. Should not those arrive at the same figure ?

A Yes, theoretically, but the point I made before is that these things do not always set in balance under competitive conditions. They tend to come back to that. But if you did it both ways, that is if you took the value of the substitute plant as the maximum value for your installed plant and again made a deduction on a basis of the difference in cost you would be making two deductions for the factor of obsolescence.

Q MR. HARVIE: And using those two figures on the one basis the rate base figure would be \$150,000.00 and on the other it would be \$174,000.00 ?

A Yes, that is true, they do not come to the same thing. Under those conditions, I would expect that the replacement would not occur.

Q MR. McDONALD: No the replacement is not actually made ?

A No, I think that is correct.

MR. HAMILTON: But sir when you reduce it to the \$150,000.00 you still have not got the cheaper operating plant ?

A That is true but you have reduced the value of the plant to the point where it is comparable to the new plant.

Q But putting in the new plant would only then cost you \$150,000.00 initially and cost seven or eight thousand dollars from then on yearly to operate. This way we have a plant that we value according to what the substitution value would be, \$150,000.00, but we are committed to spend seven or eight thousand dollars more a year to operate it ?





Andrew Stewart,  
Cross-Exam. by Mr. McDonald.  
Cross-Exam. by Mr. Chambers.

- 4521 -

A But surely the minimum value that you can put on the existing piece of equipment is what you have to pay for the substitute. Now I get your point. Then further than that you have an annual saving effected. May I correct myself on that or stand corrected. That surely is true. The value of the existing plant I think cannot be more than the value of an efficient substitute. That assumes equal efficiency.

Q MR. McDONALD: Yes.

A So that the maximum value is \$150,000.00 assuming equal efficiency, but we go on further and we say not only can you get this for \$150,000.00 but the costs of operating are half as great. There is therefore a further saving as the result of the installation of the new plant and I think correctly.

Q That should be capitalized and deducted ?

A And deducted from the \$150,000.00, yes.

Q Thank you.

MR. HARVIE: But I think you said the figures do not work out that way ?

MR. McDONALD: Oh yes.

Q MR. CHAMBERS: I am just going to interject this while my friends are discussing this. Suppose the capitalized savings of this plant, that is depreciated down to \$150,000.00, was \$150,000.00. Would you include nothing for the plant then.

A Are you not assuming then the two plants are capable of operating at the same cost ?

Q No, as I took my learned friend, Mr. McDonald's, stand, he said you had equipment of \$400,000.00 new. By wear and tear you have depreciated it to \$250,000.00, and then by reason of being able to get a substitute plant at a cost of \$150,000.00



I N D E X

VOLUME 57

December 5th, 1945.

W I T N E S S E S

ANDREW STEWART (Continued)

Page

Cross-Examination by Mr. Fenerty.....	4465
Cross-Examination by Mr. Steer.....	4470
Cross-Examination by Mr. McDonald.....	4481
Cross-Examination by Mr. Chambers.....	4521
Cross-Examination by Mr. Harvie.....	4534
Cross-Examination by Mr. Blanchard.....	4545
Cross-Examination by Mr. Fenerty.....	4558A
Cross-Examination by Mr. Chambers.....	4565
By the Chairman.....	4573

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# Corrections

## Corrections by Mr. Fenerty to Volume 56

<u>Page</u>	<u>Line</u>	<u>Correction</u>
4426	17	Last word "quality" should be "quantity"
4432	1	Fourth word "office" should be "offer"
	6	Last words "I am" should be "I am not"
	10	"I do not want you to have both sides and the middle" instead of "I do not want to have both sides to the middle".
4447	1	"You get lots of gas with pumping" should be "You get lots without gas by pumping".
	9	"Well in 1914 I told you yes without hesitation" should be "Well in 1914 I would have told you yes without hesitation".
	15	"The word "residue" should be "reservoir fluid".

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Andrew Stewart,  
Cross-Exam. by Mr. Chambers.

- 4522 -

rather than the \$400,000.00, you have it down to \$150,000.00 on account of the substitute plant. Then I understand you say if the plant there which you keep will cost more to operate than the substitute plant you should deduct something more. What I say is if the savings to be capitalized amount to \$150,000.00 would you put this plant in at nothing ?

A Yes, the plant is completely obsolete in that case.

Q Suppose the Board says we do not want you to tear it out. We want you to use that plant ?

A I think under these conditions the Board would be very unwise to say that.

Q Well if I may be permitted to interject and I think it is the place to do it rather than bring it up later. Here is the situation Prof. Stewart, there is what we call the scrubbing plant. It was originally installed in 1925 and it was added to in 1929 and 1935. And that original installation was known as what is called the Seaboard process and it was the last word in improvements at that time. In 1941, a new processing being available and additional equipment being required certain new units were added, what is called the Girbotol process and installed in such a way that they are co-ordinated ?

A Do you mean they are co-ordinated in the sense both plants are in use and are necessary ?

Q Yes, and that there are certain types of equipment, a large part of the equipment in the Seaboard that is useful and necessary in connection with the Girbotol too. Now the question comes up as to the present day valuation of that particular installation on a reproduction cost basis. Now I am not just sure of the accuracy of these figures. I think



Andrew Stewart,  
Cross-Exam. by Mr. Chambers.

- 4523 -

the appraiser said that the cost new of the plant down there, the entire plant, would be something like \$540,000.00.

A That includes both the Seaboard part and the Girbotol part.

Q That is right. And then the depreciation for the sake of argument, say it is half and half, the depreciation, the equipment in connection with the Seaboard to a greater extent than the other on account of obsolescence and the time element of wear and tear ?

A On the basis of the inspection, the observed depreciation and allowance for obsolescence.

Q Yes. And he makes some allowance for obsolescence. Then there is a subsequent discussion before the Board and evidence is brought in to show if it were an entire Girbotol plant the cost would be - there would be a saving of roughly \$80,000.00, but that involves using a large part of the other equipment too, you see.

MR. STEER: Are you taking in the appraised value ?

MR. CHAMBERS: Yes.

Q And then there is also evidence to show that on the present day forecast you would save around \$7,000.00 or \$8,000.00 a year ?

A In operating expenses.

Q Yes. Apparently this Girbotol being a new process, one of the advantages is that capital cost is less and the operating cost is somewhat less too. Now what I am getting at is that capitalizing the saving of the \$7,000.00 a year amounts to about \$78,000.00. What I am getting at is a certain amount of the equipment there would have to be there anyway ?

A That is the Girbotol part of it.

Q The old Seaboard part ?

The first of these is the fact that the  
 government has been unable to raise the  
 necessary funds to meet its obligations.  
 This is due to the fact that the  
 government has been unable to raise the  
 necessary funds to meet its obligations.  
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 necessary funds to meet its obligations.



Andrew Stewart,  
Cross-Exam. by Mr. Chambers.

- 4524 -

A They would still have to be retained.

Q Yes, a large part of that material would have to be retained in order to convert to a wholly operated Girbotol plant. You would still need that equipment. So it is not obsolete in that sense, but what I am getting at is this, that by reducing the figure on a substitute plant you allow about \$80,000.00 for the value of the plant that there is now and is needed in any case. Now what I am saying is, if you come along and take another \$78,000.00 for all this equipment you have \$2,000.00 left. Is that your idea.

( Go to Page 4525 )



Andrew Stewart,  
Cross-Exam.by Mr. Chambers.

- 4525 -

A I find difficulty in visualizing this part that is to be returned out of the Seaboard Plant, that is, is the process such that the parts are interchangeable in some cases, that is, this part of the Seaboard Plant, where some of it is the same as part of the Girbotol, so that we do not have to throw that part out.

Q That is right?

A And you just buy a certain part?

Q That is right.

MR. STEER: You have the raw material that would be used to construct the new plant.

MR. STEVENS -GUILLE: Now raw, fabricated.

MR. STEER: Fabricated, it is used in the construction of the new plant.

MR. STEVENS-GUILLE: Professor Stewart was right. They are the same units that could be used on the Girbotol as well as the Seaboard.

THE WITNESS: You have this pipe that you have here and it is the same pipe, you do not have to buy this pipe.

Q MR. CHAMBERS: Yes?

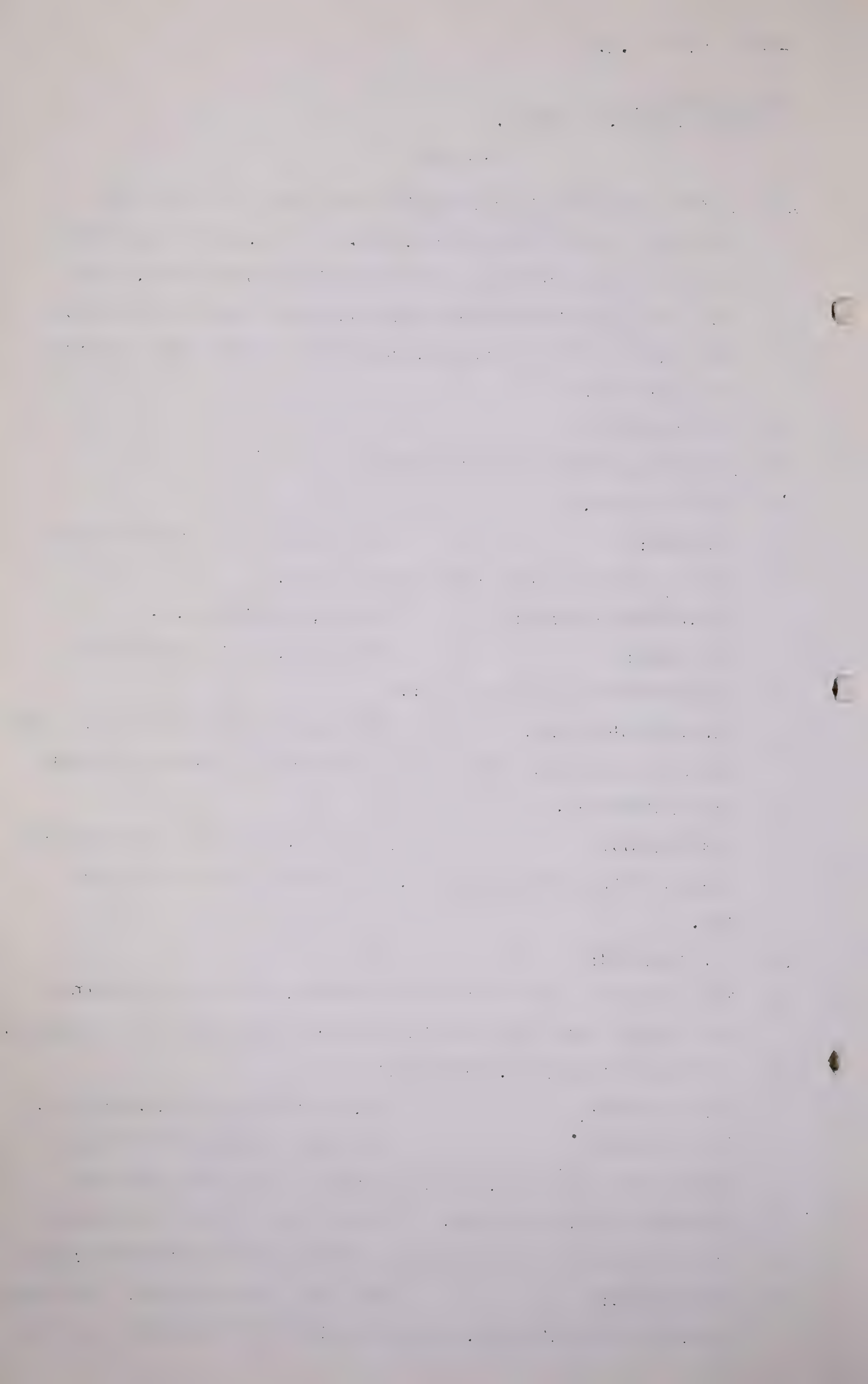
A It seems to me that that is significant, and that is one on a particular basis that the obsolescence would have to be computed.

Q Had you finished, Mr. McDonald?

MR. McDONALD: Yes, I am finished, Mr. Chambers.

MR. CHAMBERS: I had one question to follow up on this very thing, and I intended to ask this with the permission of the Counsel. I would like to put it in now in view of the discussion that has arisen over this Seaboard Plant.

Q MR. CHAMBERS: Now, as I understand it, from your idea, Professor Stewart, yesterday, in the particular case of a





Andrew Stewart,  
Cross-Exam. by Mr. Chambers.

- 4526 -

wasting asset, instead of factually measuring the depreciation referred to on page 4 of your report that all the matter of depreciation was taken care of by applying this special formula dealing with the wasting asset ?

A No, not all of it.

Q Oh. I just asked the question to get your idea of it?

A I referred to that as a special case because you have another consideration coming in, the ultimate depletion and the exhaustion of the reserves, but the same factors of physical wear and tear and obsolescence are still there.

Q Am I right in this, that you say we should have an inspection of the plant and to assess wear and tear and the obsolescence and take that off, and also take and depreciate that further by the volume that has gone through?

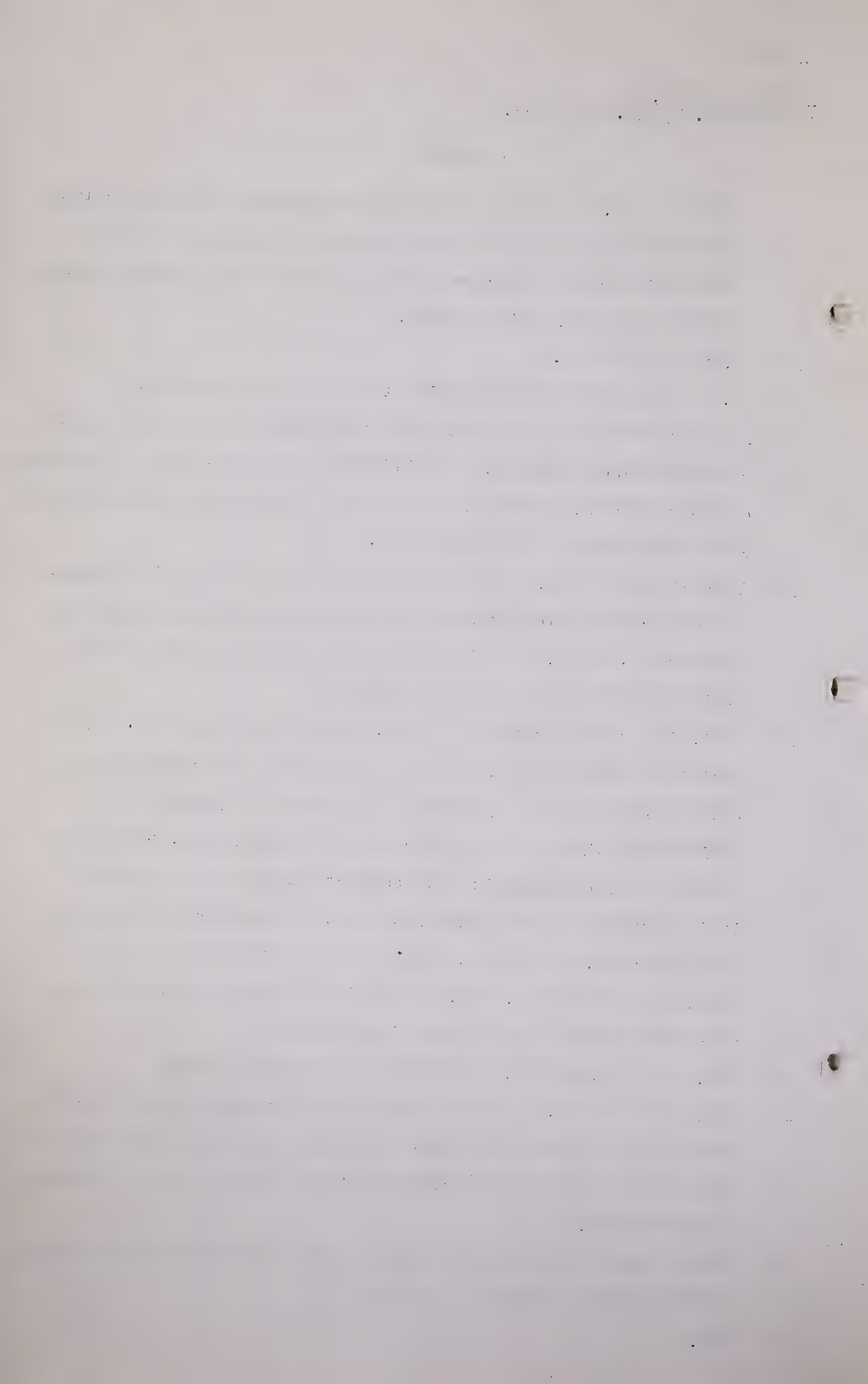
A Well, it would depend, I think, on the circumstances. My position would be this, that if investment has been made on the assumption of 20 years' life, I am simplifying it by taking that time factor rather than the throughput, although I think the throughput is the correct basis, but supposing it is based on the 20 year life and the throughput works out on that basis, so that we come to the beginning of the 19th year, one year to go, now, the maximum value left in that is one-twentieth of the original investment.

Q But, as I understood, the basis, that is the basis?

A Yes, it could be. The equipment is so far depreciated that it would not even last the year. In that event you would have to take a still further reduction in value because of the physical deterioration.

Q Well, assume with me that there is about 27% of the volume gone through on the average, you see?

A Yes.



Andrew Stewart,  
Cross-Exam. by Mr. Chambers.

- 4527 -

Q There is about 73% there. Now, as I understand it, one of theories behind the volumetric basis is, it proceeds on the theory that the investor when he started out he would foresee over that period of charging up so much to each unit his depreciation, and his depreciation that he is going to write off will cover both wear and tear and obsolescence?

A To provide for the recovery of the full investment?

Q Yes. And if you are going to say that, and assuming the 27% has gone by, and that you are going to depreciate on that basis, and that he is assumed to have written off only 27% due to obsolescence and everything else, isn't it fair to say that the other 73% which, in the new picture, new people are interested now, shouldn't they take the good with the bad?

A I would say that is the maximum amount that can be left, the maximum amount of value that can be left. If the equipment is depreciated very rapidly, as it may, and it seems that the equipment will not last the remaining 73%, then you have a further factor of physical depreciation.

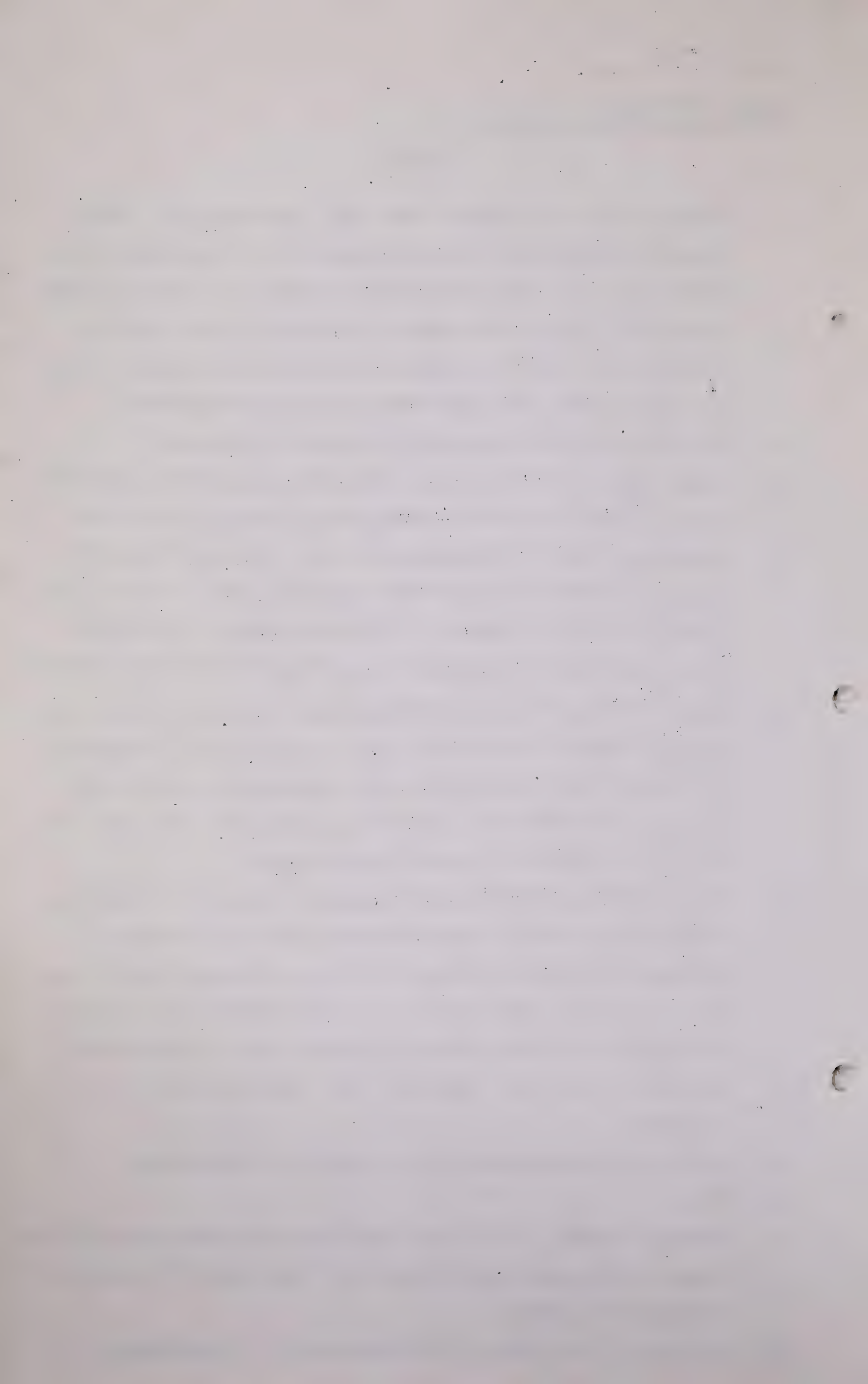
Q But I understood that one of the prime reasons for adopting this volume basis is that the asset itself is capable of lasting and doing a greater job than the wasting asset there to be handled. Isn't that one of the reasons that you use this special method because the asset itself, mechanically, is able to do or to handle more gas than is there to be handled?

A That is the assumption at the time of the investment?

Q Yes?

A You are assuming that we are putting in equipment which on the basis of physical wear and tear and obsolescence we expect to outlast that period.

Q And due to the nature of the operation to be performed, its





Andrew Stewart,  
Cross-Exam. by Mr. Chambers.

- 4528 -

service value is limited by the amount of the product that is there to be handled?

A Yes, that is so, that determines the maximum.

Q Now, as I understand it, you say that an investor or company installing that equipment for the first time, who assumes, or he has some information to indicate that while it mechanically will last the number of years or may handle one hundred billion or one hundred million cubic feet of gas, there is only so much there to handle?

A Yes.

Q And that, therefore, it is reasonable to assume that he expected when he started out that he would write off or transfer to reserves for every thousand cubic feet of gas that he handled, that proportion of his depreciation, and that depreciation would be taking into consideration both obsolescence and wear and tear, would it not?

A No, that is based upon a depletion factor, but he starts with the assumption that the expected life of the properties in terms of physical wear and tear and obsolescence will be longer than the life depending on depletion.

Q Yes?

A Now, that may not work out so. That is the expectation at the time of the investment.

Q Yes?

A But supposing that that life was a period of 20 years. I will simplify it by taking 20 years. You come to ten years, and half of your reserves have gone. Then in the terms of the depletion factor, the maximum value that you could have would be one-half. It is true that when these properties were put in it was expected that they would outlast, but something may have happened, an unexpected thing, so that the rate of actual



Andrew Stewart,  
Cross-Exam. by Mr. Chambers.

- 4529 -

physical depreciation is greater and, in fact, it appears that they won't last out, then you have a further factor of physical wear and tear to take into account.

Q Well, let us take this situation. Take it on a yearly basis because it is simpler to apply the principle for the purposes of our discussion. We will say that the investor or the company makes the construction in 1930?

A Yes.

Q And they know, or they have information to indicate that by 1960 all the raw material which is to be handled by that plant will be exhausted, that is, a thirty year life. And they say, therefore, "We are going to write it off one-thirtieth each year". And we come to 1945 and, unexpectedly, there is legislation that brings it under regulation. And we have appraised the situation again in 1945, and the survey of the situation is exactly the same as it was predicated on in 1930. Now, as I understand this, you say that under those circumstances, you say it would be reasonable to assume that back in 1930 the investor would expect to write off one-thirtieth each year?

A Yes.

Q To take care of his obsolescence and everything else that way?

A Yes.

Q And we come to 1945, and he has written half of it off. Now, what I am suggesting, and I am doing it for the purpose of discussion, when the utility set-up comes into the picture, and you are going to apply this service value or service life process to take care of depreciation, why that does not also take care of this wear and tear and obsolescence?

A I would certainly want to look at the equipment at that time. I mean, it is quite conceivable that the thing is going to fall apart in one year.





Andrew Stewart,  
Cross-Exam. by Mr. Chambers.

- 4530 -

Q Assume we have evidence of a competent engineer and an appraiser that the equipment is in excellent shape, well maintained, and will outlast?

A Actually outlast?

Q Yes?

A Then the maximum value is one-half.

Q But it is the principle that I am trying to get at, Professor Stewart, assuming the plant is well maintained, that if you are going to use this formula, and it is an arbitrary formula, there might be a basis behind it, I mean, but you do not suggest that it factually measures the wear and tear and depreciation, do you? I mean, you told me that yesterday?

A No.

Q The throughput basis?

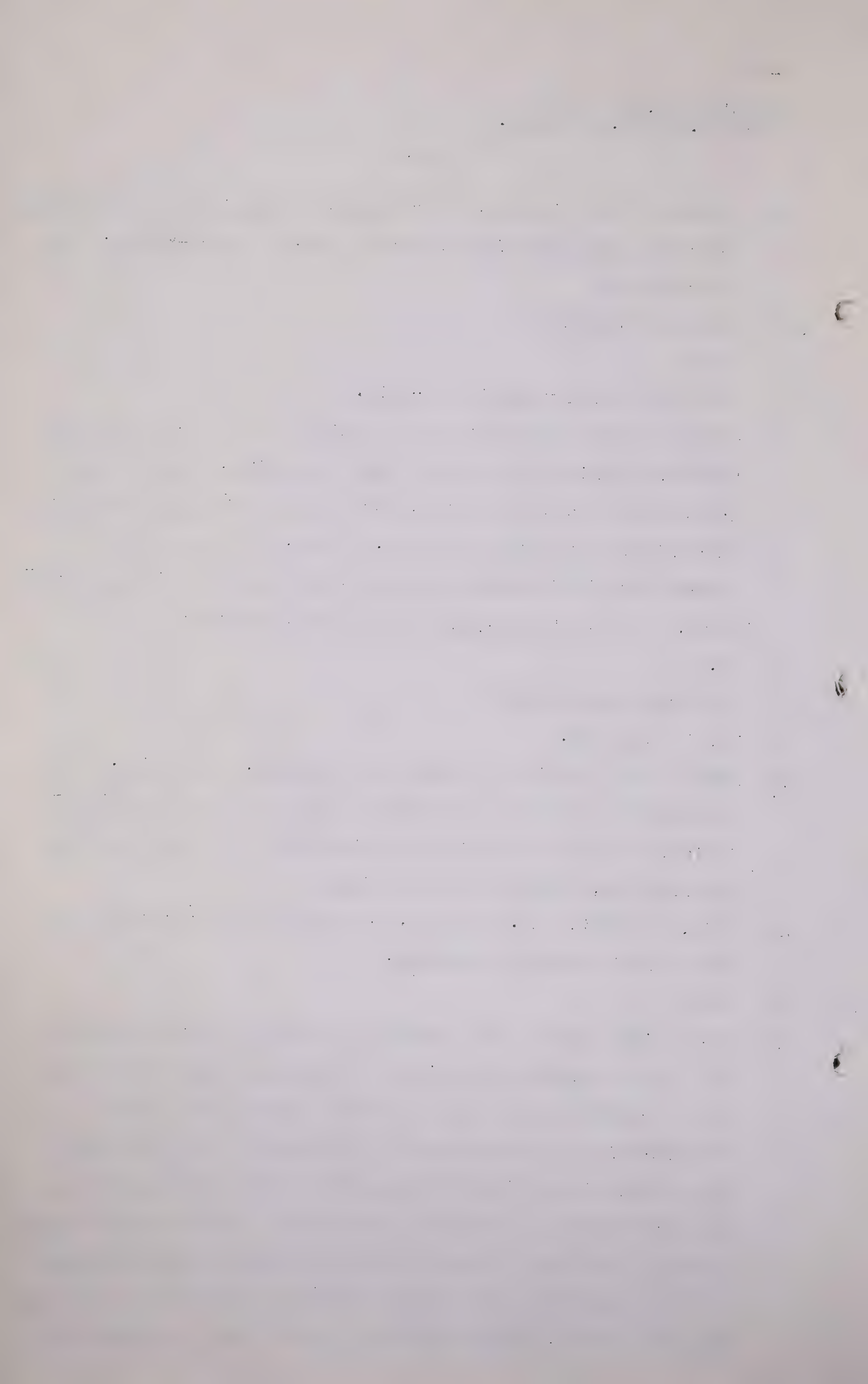
A No, it does not.

Q Now if you are going to apply the arbitrary, let us say, the formula that does not necessarily measure the factual depreciation, that you should in fairness take one or the other and not mix them, do you see what I mean?

A Well, my point, Mr. Chambers, is that when the investment is made certain risks are assumed.

Q Yes?

A These risks include the risk of the duration of the material, but let us suppose that there is something else, that it will last a certain time, there is still a risk so far as the deterioration of the material is concerned. It is true that the expectation is that the properties will last beyond, and the investment is made on that assumption, but it is still quite possible that when you come to halfway through the exhaustion of the reserves that the actual physical wear and tear has been much more rapid, and the expected life of these properties was



Andrew Stewart,  
Cross-Exam. by Mr. Chambers.

-4531 -

only average, they are based on normal expectation, but in particular cases it might be much more rapid or much less rapid.

When you come halfway through I would want to look at the properties, and if in terms of physical wear and tear they are more than half-depreciated, I think that must be taken into account.

Q Yes, but I am asking you to assume that there is no question but what the plant will outlast the job that has to be done by it?

A At this halfway mark?

Q Yes?

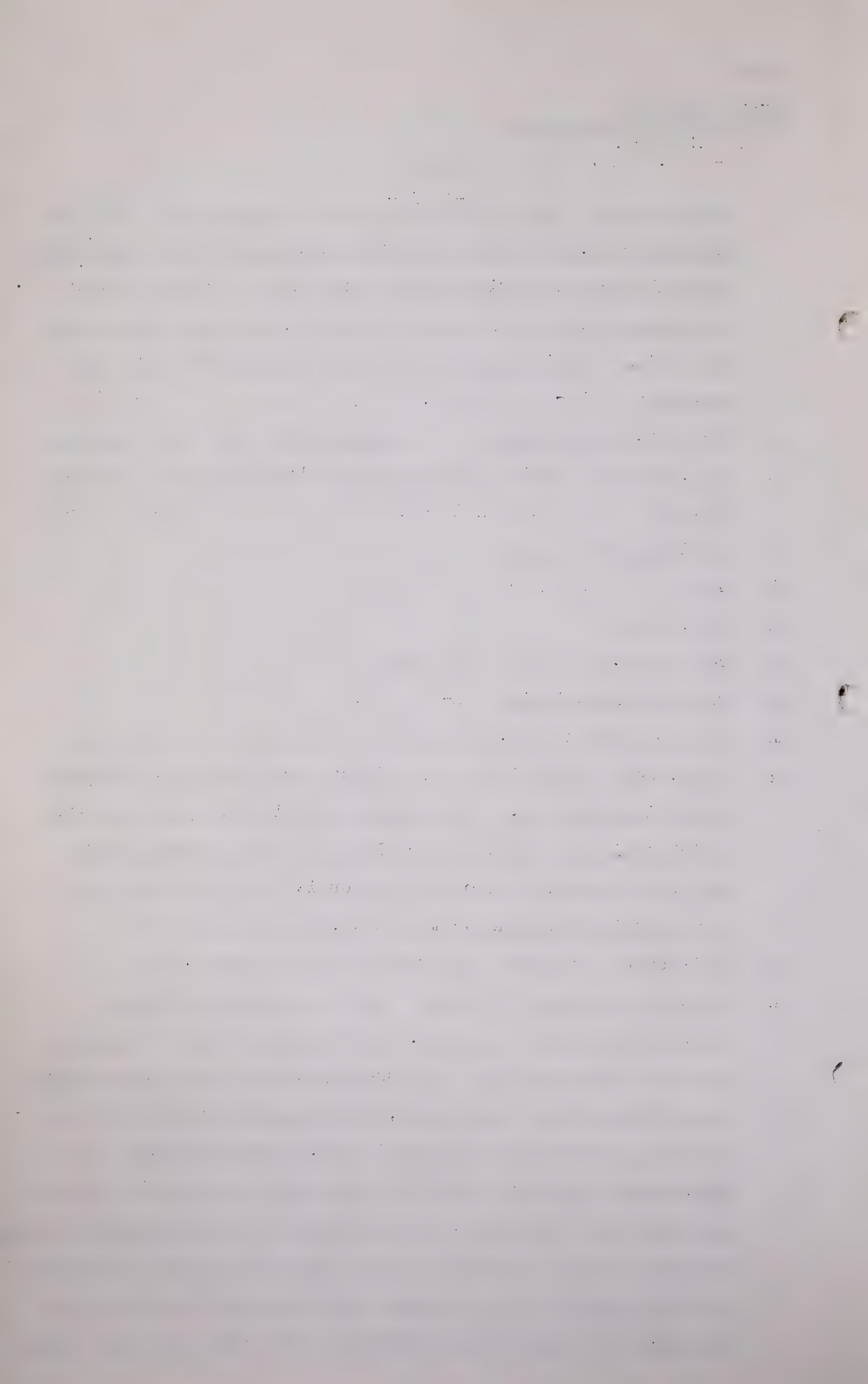
A All right.

Q And the plant is in A-1 shape?

A Just as good as new.

Q Well, so far as doing the job is concerned there is no more operations expense. That is you are going to apply a formula which admittedly does not reflect the factual wear and tear, or obsolescence, that my suggestion is that in fairness you have got to adopt one or the other, and you should not hold this company accountable twice for obsolescence.

A My answer is that there is not one depreciation. There are a number of different factors. And I distinguish between this condition of a wasting asset by saying there is another factor to be considered. Now, I would refer to it as a depletion factor rather than depreciation, because I think we are beginning to confuse the terms. If we show this thing as depreciated and at the time the investment is made the maximum expectation of the use of the properties is the limitation of the reserves, if the properties on the basis of normal depreciation could be expected to last beyond that time, so that when the investment is made the expectation is that when you come to the





H-3-8

Andrew Stewart,  
Cross-Exam. by Mr. Chambers.

- 4532 -

halfway mark, it is still true that your reserves are half depleted, and that you have, in fact, used up half and recovered half of the capital.

(Go to page 4533)



Andrew Stewart,  
Cross-Ex. by Mr. Chambers.

- 4533 -

The company takes the further risk when it makes that investment that its normal expectation of life for the equipment being such and such will not actually reflect it.

Q Let us take this fact. Coming back to the Seaboard. When the Seaboard was put in it was the last word and the latest process and it is still doing the job. We come to a situation later on and let us assume this, that when the Seaboard was put in it was assumed that later on you might have to add to the equipment, you see. We come along to 1941 and the stage has arrived where we need greater scrubbing capacity you see.

A Yes.

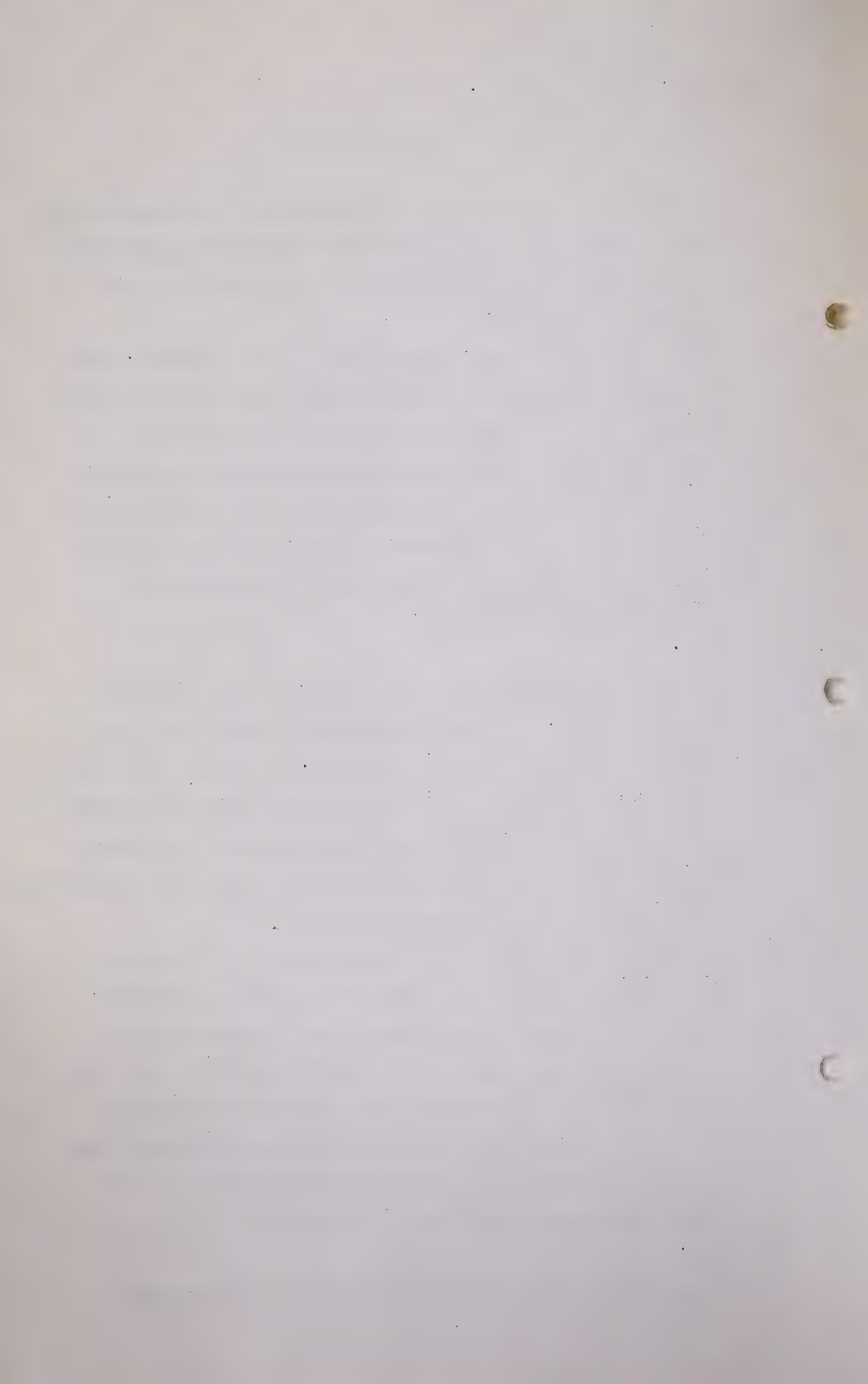
Q And the Company buys the latest, which is the Girbotol and puts it in. Now that joint unit is capable and will be used and useful to finish the job. Do you say that under those circumstances that in applying the throughput method of assessing depreciation that you should take something off the Seaboard valuation because under present day conditions you might have put something else in?

A I would so conclude, yes. I think that is a risk which the utility faces when it makes the original investment.

Q But I also understand you to say that in the case of a wasting asset and when you come under regulation even for the first time, and when you are assessing what is fair as between new parties that enter into the picture - and we will admit that they are new parties in the picture under regulation, they were not in before.

A Yes.

Q That when you are now coming to assess as to how much





Andrew Stewart,  
Cross-Ex. by Mr. Chambers.  
Cross-Ex. by Mr. Harvie.

- 4534 -

depreciation should be deducted you do it on a formula basis which does not factually measure obsolescence and wear and tear and you say that in addition to assessing it artificially on that basis they should go back and do something more for the factual situation.

A I think it has to be considered in addition to the depletion factor.

Q Thank you.

THE CHAIRMAN: Mr. Harvie.

.....

CROSS-EXAMINATION OF THE SAME WITNESS BY MR. HARVIE.

Q Professor Stewart, I gather that where a utility handles a depleting or wasting asset, that your suggestion is that one of the main factors in the matter of depreciation is the relation of its throughput, past throughput and future throughput, available throughput; that you suggest it should depreciate on a unit throughput basis, which is the term you apply.

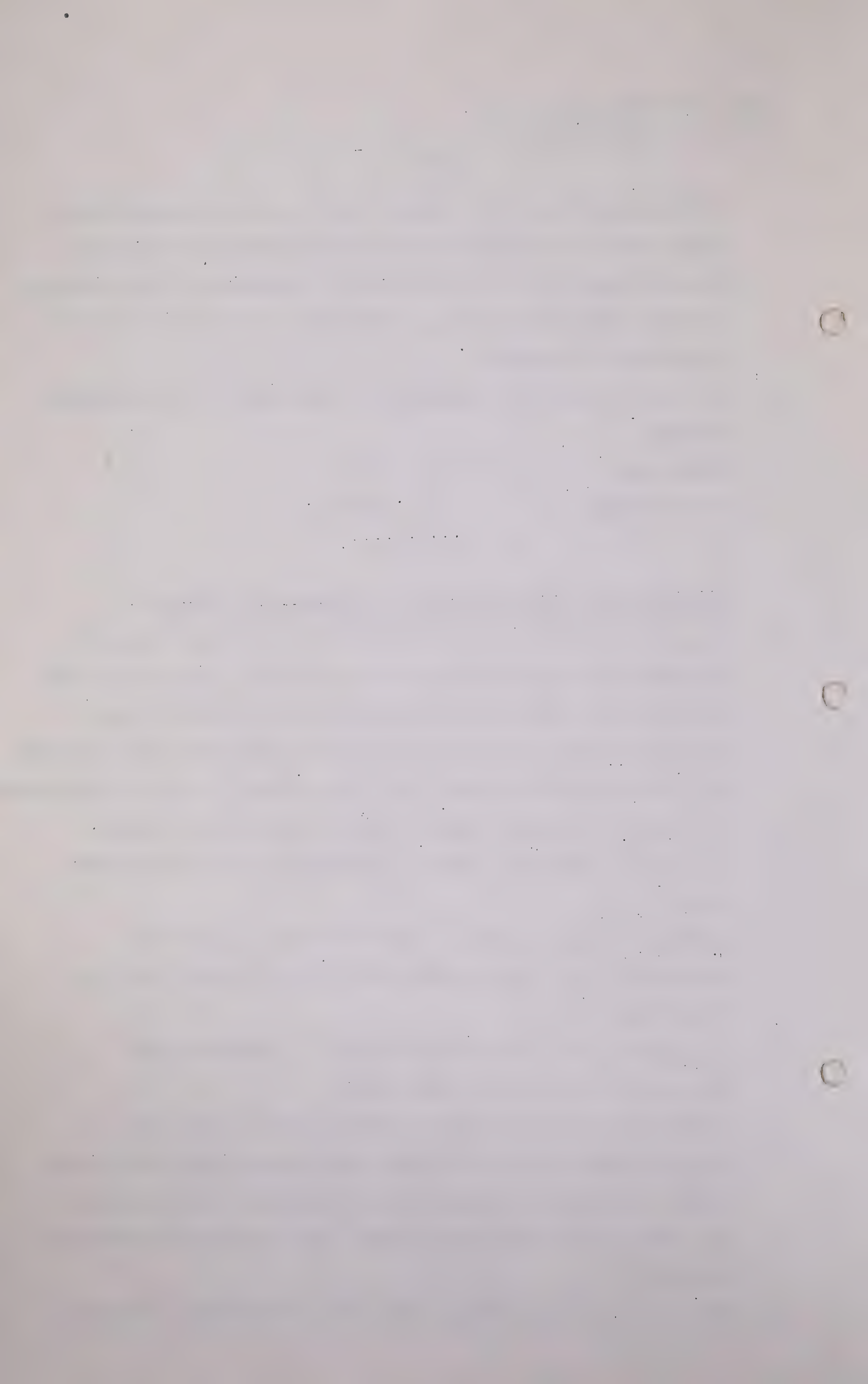
A I think in this case that is preferable to the simple time basis.

Q What unit have you got in mind that would be used in connection with the commodity that is being dealt with in this Inquiry?

A Well again I am not sure how closely I understand the particular situation in this case.

Q Maybe I can help you and put the question in this way. I gather every person to date has been considering a unit that would be employed in using that formula as a unit volume of gas, we will say 1000 cubic feet. Does that agree with your thought?

A Yes, we have been talking about gas and presumably thinking



Andrew Stewart,  
Cross-Ex. by Mr. Harvie.

- 4535 -

in terms of gas.

Q So that if the original reserves - or the estimated reserves at the time the plant was built was 100 billion and at the time the plant was taken over as a utility, 50 billion had gone through, you say that plant should have a maximum value of 50 per cent?

A That is correct.

Q And it also should have a minimum value of that, providing that it will last and has an expectancy of life able to carry out the handling of the remaining units?

A Yes.

Q So in that case it would be a straight 50 per cent valuation on. . . . .

A Well I think I will have to qualify that earlier statement. I realize it is not consistent with what I have already said. I think that the factor of obsolescence has to be taken into account.

Q What other factor is there if the plant has a life sufficient to look after the remaining units?

A Well the point is that every business seems to come to the point eventually where it is better in its own interests to replace an existing piece of the plant by substituting others and under those conditions the existing plant is completely obsolete and replacement occurs.

Q So you suggest over and above this formula of unit throughput that you must look at the matter of obsolescence?

A I think so, yes.

Q Not so much from the standpoint maybe of whether it is physically capable but the comparable operating costs of that old unit and a substitute unit.





Andrew Stewart,  
Cross-Ex. by Mr. Harvie.

- 4536 -

A It is said we are concerned with values and I think the factor of obsolescence is relevant to any measure of values.

Q You know there is some risk in drilling gas wells and oil wells?

A So I have heard, yes.

Q Suppose we start with Turner Valley, with the first well that was drilled in there and we get the nice big Number 4 well, Royalite Number 4. That is a wet gas producer. In order to make that gas of any value and in order to get the absorption product out of it, so as to allow it to be sold as fuel in any domestic market, you have to build a scrubber and an absorption plant, two different units. What have the directors of the company owning that well and making those investments to base their judgment on as far as reserves. You have been suggesting, I think, all along in your evidence that a prudent investor must know the future factors. Under those circumstances we do not know the future factors.

A No, I have suggested that in applying the prudent principle, the prudent investment principle, the element of judgment is necessarily involved and I would suggest that the regulating body should assume that the company has acted wisely unless there is clear evidence to the contrary.

Q So you will agree with me at that time there was no such thing as any figure in mind that could be used suddenly as to the length of time that that unit would be in operation or the number of units that could be put through the operation.

A No, I think I am assuming that investors are rational people.

Q I am afraid they cannot all be.

A And necessarily the action of investment implies some



Andrew Stewart,  
Cross-Ex. by Mr. Harvie.

- 4537 -

estimate with regard to reserves.

Q Possibly. In that case I suggest the only estimate could be a pious hope that there will be enough and will you not agree with me that a great many risks are involved in an industry such as the oil industry. That is you do not know whether or not your next well will come out dry and you do not know whether or not you will have any gas.

A The implication of that is that the risk is considerable. That is the way I would put it.

Q Let us take it at that same time that the well comes in, that there are factors that would allow an engineer to estimate that there is 100 billion feet going through. And the investment is made. At the stage where 50 billion feet have gone through, on the formula that you suggest that investment would be at least 50 per cent depreciated.

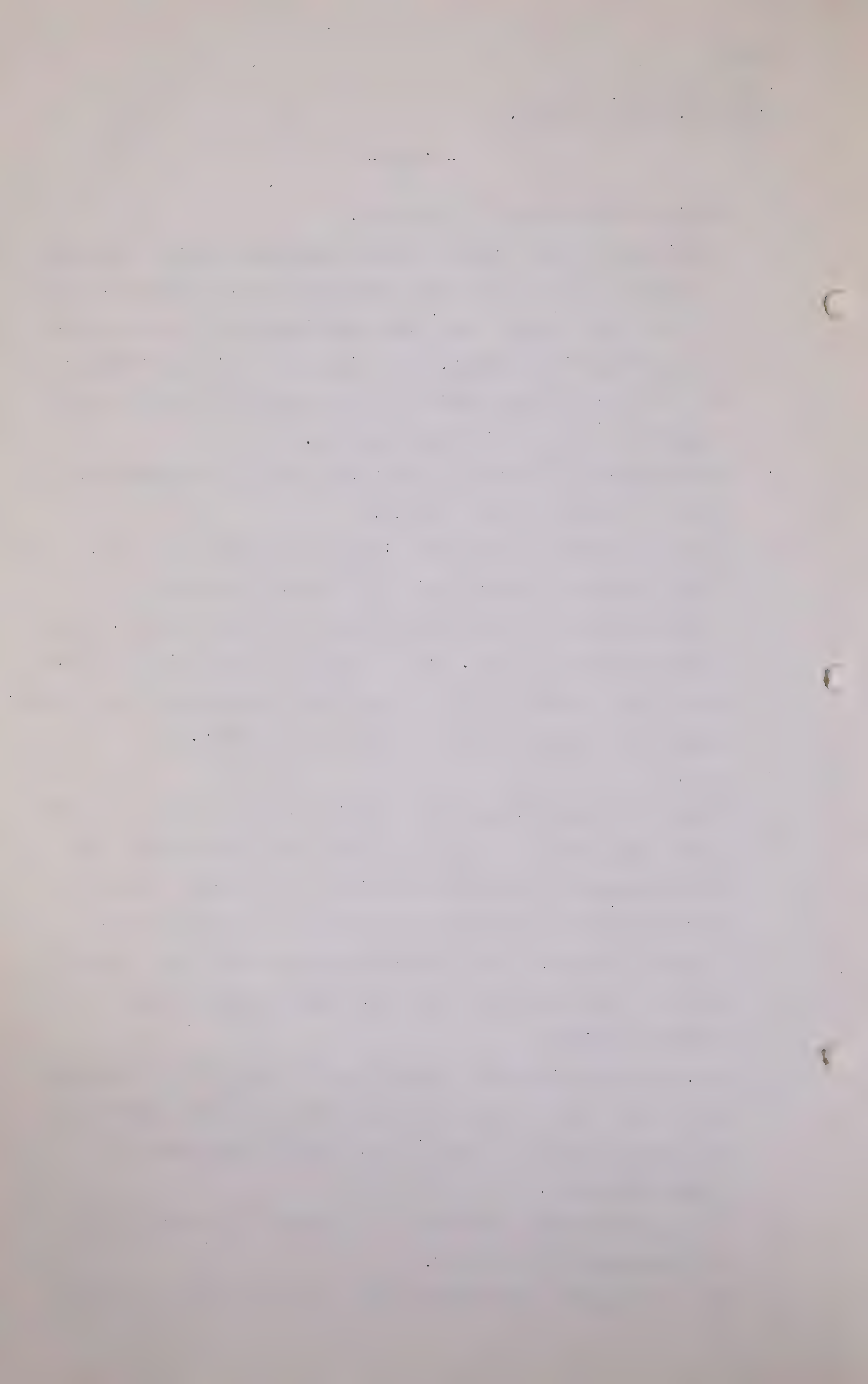
A Yes.

Q But we will say it goes along until 75 per cent of the units have gone through but the field has been greatly extended and instead of having your original 100 billion, you have 500 billion available and the plant is still capable of handling it all. Would you suggest that would be a proper case to have a variable rate base and to revalue that original plant?

A No, my conclusion would be we have to deal with the situation as we find it. So much has gone out and current knowledge indicates there is so much left. It is a question of proportionality.

Q We say our current knowledge is today it has depreciated 50 per cent on that basis.

A No. On the assumption that there was 100 billion to begin





Andrew Stewart,  
Cross-Ex. by Mr. Harvie.

- 4538 -

with and you come to the point where there is 50 billion  
and you know now . . . . .

Q Now, you do not know anything more.

A On that basis you still have the 50-50 portion.

Q And we go along until 75 billion have gone through and by  
that time we find that there is 500 billion more available  
by later development in the field.

A That is 575 billion.

Q 525 billion still to go through, or a total of 575 billion.  
Would you suggest that at that time the company that consider-  
ed that it had not got enough or a fair valuation on the  
50-50 basis when it was first brought under regulation  
would be entitled to a re-Hearing and to apply for a new  
valuation of the plant. In other words, a variable rate  
base the same as the variable rate base on the other prin-  
ciple. Replacement value or anything else.

A I am afraid this is a new thought to me.

Q There are an awful lot of new thoughts in this whole thing  
for all of us and that is why we are having so much difficulty.

A I can see if you proceed of course on the original basis  
you will ultimately then arrive at the point where the full  
amount had been recovered and there was a great deal of  
material still left.

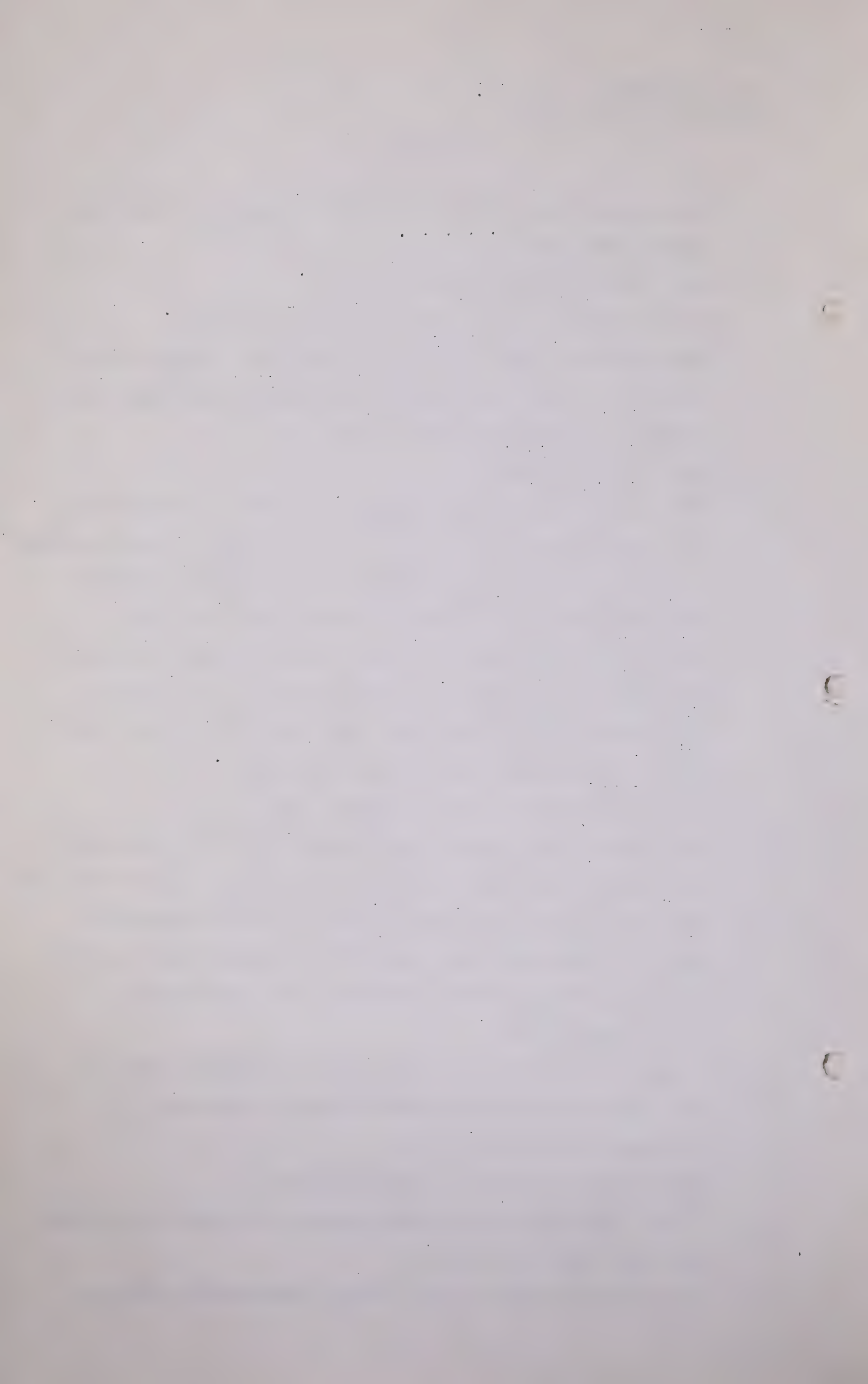
Q We have not arrived there yet. We have only arrived at  
the point where there is three-quarters recovered.

A There are 75 billion.

Q Three-quarters of the original estimate.

A Oh yes, three-quarters of the original estimate, 75 billion  
feet have been recovered.

Q Yes and on the basis of the original estimation you have



Andrew Stewart,  
Cross-Ex. by Mr. Harvie.

- 4539 -

recovered 75 per cent and you have written down your assets to 25 per cent.

A Yes.

Q At that point then you see you now find there is a much larger reserve than you originally expected and if you continue on the original basis then when another 25 billion has been used up it is all recovered.

A Yes. That is, would be all recovered on the basis of the Board's valuation.

Q On the 50 per cent basis?

A That is correct.

Q That was a wrong formula. It proved wrong later.

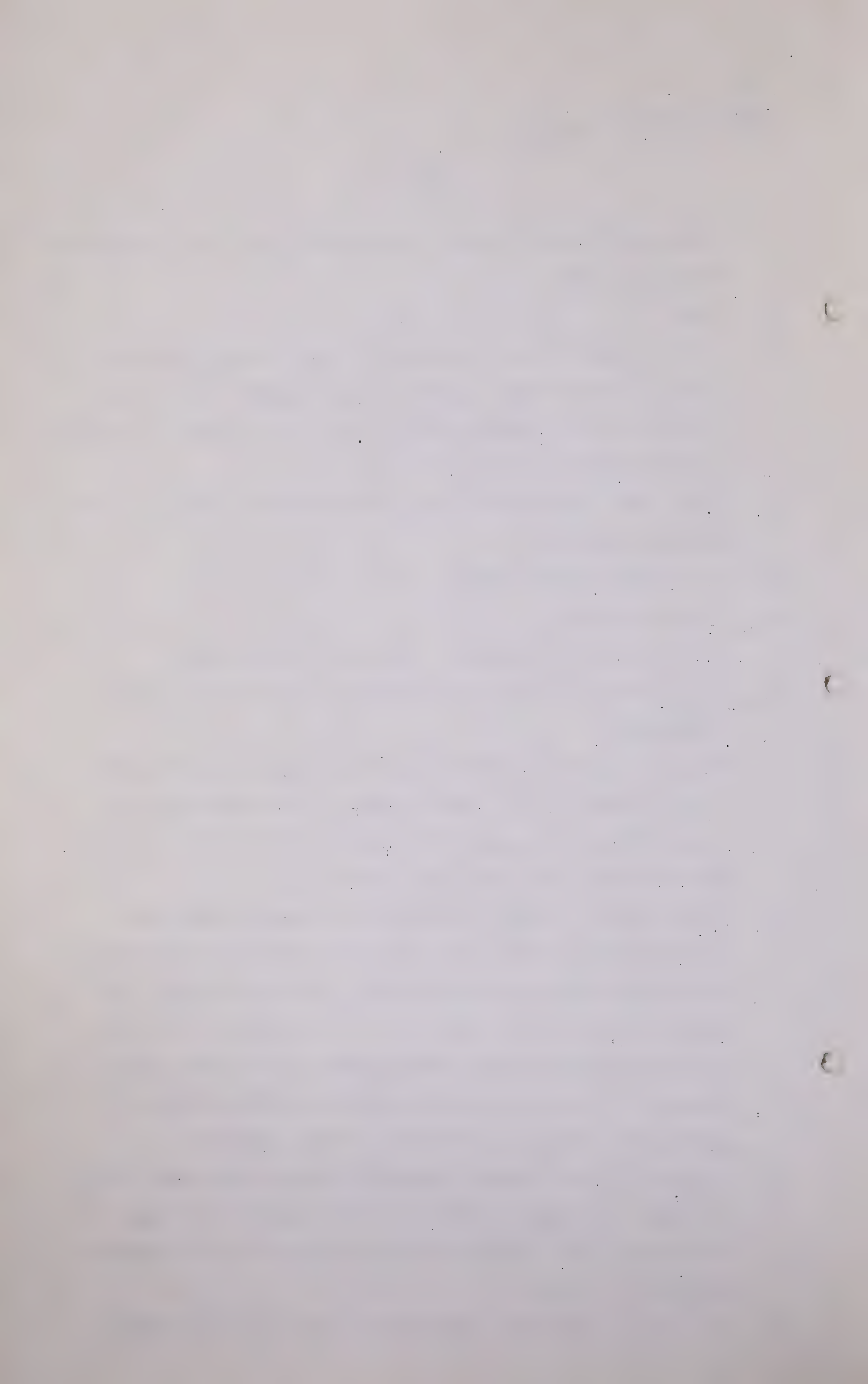
A Well it was right at the time on the basis of existing knowledge.

Q Yes, and later we found that before the time had expired that it was not the right formula. I am suggesting or I am asking you do you think consideration might be given at that stage for a new rate base?

A Well I think I would be inclined to suggest that you continue on the basis that you are proceeding on and then at the time when, on the basis of that arrangement, the full amount had been, that is of the estimate, had been recovered that some new arrangement might be made satisfactory to the continued withdrawal of the material, to induce the continued withdrawal of the material.

Q I think the difference between my question and your reply is this, my point is that the full value has not been recovered if the proper formula had been applied when we arrive at a value.

A We have to arrive at a formula at any time on the basis





Andrew Stewart,  
Cross-Ex. by Mr. Harvie.

- 4540 -

of existing knowledge.

Q But should not that be kept current?

A Provided that is carefully arrived at on the consideration of the factors it is the best judgment at that time and we proceed from that point.

Q And do you suggest as we become familiar with additional factors that make material changes that we should keep current or be fixed?

A My difficulty in arriving at a general conclusion there is that at the time that decision is made, not only may you later discover that there were 500 billion more but you might in fact discover that there was much less.

Q That is just the point I am coming to. If there is less and we will say that the 75 per cent of the units removed proved to be 100 per cent, who takes the loss?

A At the time we make the decision we have to proceed on the existing knowledge?

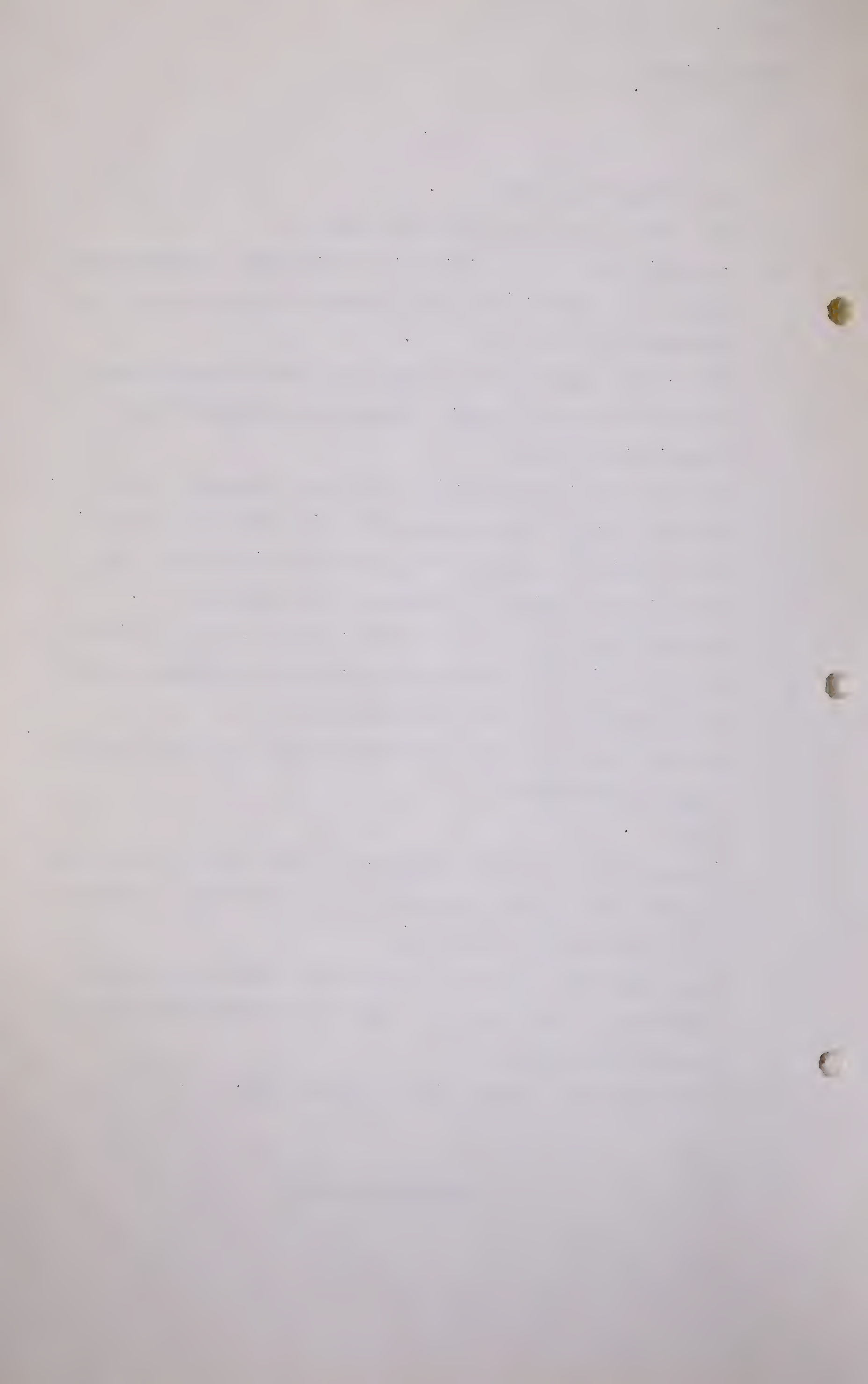
Q Yes.

A If on the basis of the knowledge at that time it seems that half is gone and half is there, then we take as a maximum half the original investment.

Q Your suggestion is that no matter how incorrect the knowledge was at the time that a particular formula was applied you would not vary it?

A I think I would proceed on that basis, yes.

(Go to page 4541)



Andrew Stewart,  
Cross-Exam. by Mr. Harvie.

- 4541 -

Q Well do you think that that factor, whether it might allow a little leeway in rigidly applying that formula, at the time it was originally made, where it is known, as it was discussed with you yesterday by Mr. Chambers I think, that the minimum reserves or conservation reserves were adopted, rather than the reserves for the last period ?

A Well as I say in my submission that, at the time we reached the decision with regard to the appropriate basis and method of regulation, if there are any further uncertainties with regard to the remaining quantities, if that is a factor, it should be taken into account in determining the rate of return.

Q And you carry that absolutely through, and then you make some quantity adjustments ?

A I do not see any better way of doing it.

Q Now so far as the units which we have been discussing, we have been discussing a unit in volume of gas, is there any reason why the unit should not be the value, unit of value instead of unit of volume, - let me put this hypothetical case before you, supposing the unit for the first 50%, the first 50% of the 100%, were worth five cents a unit and that this plant was constructed in the expectation that you had to take a small market for that unit, or a low value for that unit during the earlier period, and that you could build up a more, a much better, a more valuable market, for that unit for the later period, and let us say for the later period it goes to ten cents, would it not possibly be a fairer unit of measurement to adopt the unit of value instead of the unit of volume ?

A I think it would be a less practical method, regardless of the question of quantity. It seems to me that at the time of the investment, and I am thinking of an utility, a company,





Andrew Stewart,  
Cross-Exam. by Mr. Harvie.

- 4542 -

not under regulation, making the investment, the whole problem is one, it is a problem of quantity and price. Not price from year to year but the long run price, or as you like to call it, the average price which might be obtained over a period of time. That is all part of the expectation at the time.

Q I am suggesting to you that is not what is expected at all by this Board of Directors, - I am suggesting that this particular Board of Directors knew that there were reasonable grounds to anticipate one hundred billion feet going through ?

A Yes.

Q The first fifty billion of which would be five cents for the value and the last fifty billion ten cent value, now we lose that extra five cents ?

A I find it very difficult to see that a company can estimate a given price for a certain period and another given price for another period. Under the conditions of complete monopoly, under conditions of complete monopoly, a Board of Directors might decide they are going to charge this price for a certain period and another price for another period, but under competitive conditions it is hard to estimate that.

Q Do you think it is any more difficult than to attempt to estimate volume many years hence ?

A I would not know that because I am not familiar with the engineering problems of making the estimates.

Q We have heard in the discussions at various times, the matter of "pure interest" raised and I think you suggested to Mr. McDonald that you might put the rate of "pure interest" at approximately 3% at the present time ?

A Yes, offhand that would seem to be as good an estimate as I could give.



Andrew Stewart,  
Cross-Exam. by Mr. Harvie.

- 4543 -

Q Would you say that the rate for pure interest has been constant over we will say the last half century ?

A No.

Q Have you any idea what would be the comparable rate in 1900 ?

A There has been, I know, a general tendency for the rates of interest to fall.

Q I wonder, - you have not those figures ?

A No I have not.

Q I wonder if it would be possible for you to file a statement showing what you consider would be the fair "pure interest" rates starting in 1900, every ten years, up to the war and ever since the war ?

A Providing that any comparable material is available I will attempt to do that, I will try to get any material that I can and put it before you.

Q Thank you. There is just one other matter, Prof. Stewart and that is in your Exhibit 131, at Page 21, about half way down in the long paragraph and I will read it:

"In general, therefore, the rate of return to utilities should be lower than the rates earned in competitive business".

I am afraid I do not clearly understand just what you mean by "competitive business" to an utility and I am wondering if you mean that maybe the rate of return of a particular concern might be less, while it is an utility, than it would be if it were allowed freedom of action ?

A By "competition" I mean it is subject to competition of other enterprises. Now I take it as one of the general features of utility regulation that utilities are protected from competition through other enterprises.





Andrew Stewart,  
Cross-Exam. by Mr. Harvie.

- 4544 -

Q And from that standpoint the same, - or I will put it this way, really utility has no competitor in its business ?

A That is so.

Q So it cannot be competitive business in that sense, it must be, the distinction must be, the same business when under control as against when not under control ?

A Well I do not see any substantial difference between us, Mr. Harvie.

Q I do not know that there is any at all, I just wanted to understand what you say there and I am trying to find out ?

A Well if, for example in a particular case we have an electrical utility which is regulated, one of the features of regulation is that it is protected from competition. Now we have another electrical utility over here which is not under regulation, it is subject to competition. Taking that as representing regulated and not regulated competitive business, I would say the reasons are greater than in this case. In the second case, than in the first.

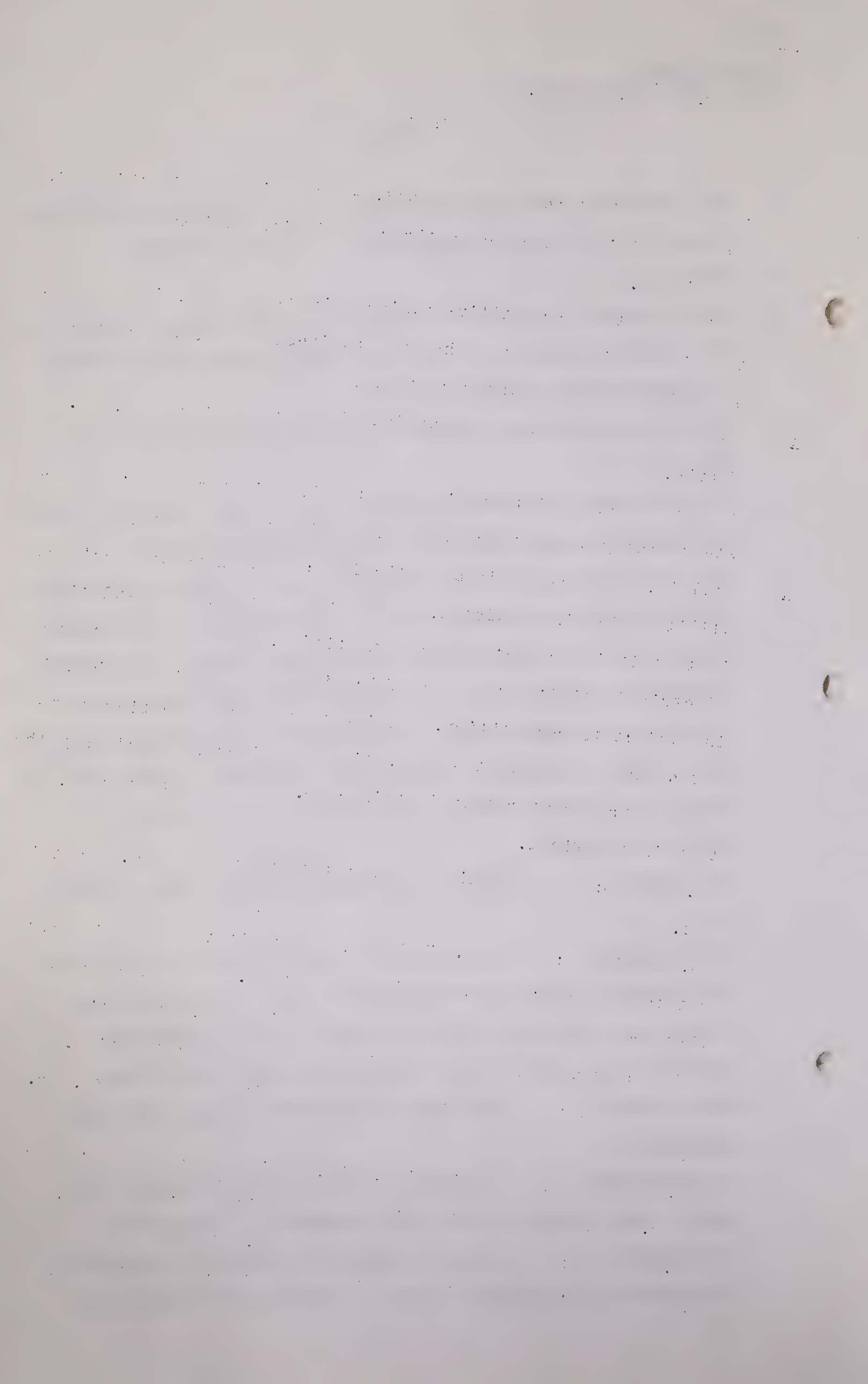
MR. HARVIE: I think I understand what you mean. That is all.

MR. BLANCHARD: Mr. Chairman, I take it that you will not get through by the usual adjournment time. I was wondering whether you proposed to try and complete Prof. Stewart's evidence today later on or adjourn it until a later time.

THE CHAIRMAN: How long do you think you may take, Mr. Blanchard ?

MR. BLANCHARD: I think, sir, I will be very short, not long. I may be able to add some confusion to the matter.

MR. FENERTY: I want to ask Prof. Stewart to complete one answer to a question of mine. I interrupted him in the



Andrew Stewart,  
Cross-Exam. by Mr. Blanchard.

- 4545 -

middle of his answer and I should not have done so, but that should not take more than a minute or two.

THE CHAIRMAN: And I may have a few questions to ask myself. Has anyone any objection to sitting this afternoon for an hour and a half or so. I have a slight difficulty myself. I have already made another appointment but I can be back by half past two.

MR. STEER: That is satisfactory with us.

THE CHAIRMAN: Does anyone object to an hour and a half ?

MR. CHAMBERS: No, sir.

THE CHAIRMAN: Then we will adjourn now until half past two.

(The Hearing was here adjourned and resumed at 2.30 P.M.)

PROFESSOR ANDREW STEWART, having been recalled, Re-Examined by Mr. Blanchard.

Q Prof. Stewart, what is your view with respect to the incident of the excess profits tax and heavy income taxes due to war conditions ?

A I think it is impossible to escape entirely from the burden of obviously 100% taxes. You mean - -

Q What I was trying to get at is, if it is your opinion that the consumer should bear the whole of that, of those taxes or that it should be borne in part by the utility ?

A I should think borne in part by the utility.

Q I would like to just read an excerpt from an opinion in the Federal Power Commission judgment with respect to the Panhandle Company. Now this is part of the judgment, referring to taxes, the heavy taxes, extraordinary taxes imposed by reason of war time expenditures:





Andrew Stewart,  
Cross-Exam. by Mr. Blanchard.

- 4546 -

"Thus it appears that the doctrine of unjust enrichment as well as equity and good conscience compel the conclusion that a Statute should not be permitted to thwart the purpose and spirit of the war price control legislation and the revenue laws by passing such abnormal tax requirements along to its consumer as an operating expense to be collected in increased rates. Indeed we feel increased rates on such a basis would be unjustifiable. To allow them would in effect impose upon the consumers a sales tax."

Do you agree with that opinion ?

A I would, yes.

Q Now referring to your evidence with respect to the factor of depletion in accrued depreciation, - I take it that it just means this, that if you have installations whose service life is, let us say one hundred years, and the life of your field is only twenty-five years, then your opinion is that the depletion should be on the basis of through-put, that is the past through-put as compared with the reserves which are left ?

A That is correct.

Q And that at the end of twenty-five years, while the installations might be good in some other location for seventy-five years, - the utility has that salvage ?

A Yes.

Q Yes, as it would have had if it had never been under regulation ?

A Correct.

Q Then you also go a little further than that, you say in addition to the depletion allowance which should be the minimum depreciation, that you may find with a field having a life of twenty-five years that some of your installations only have a life of two years ?



Andrew Stewart,  
Cross-Exam. by Mr. Blanchard.

- 4547 -

A Yes.

Q And in that event you say it would be proper to depreciate those on the basis of their actual predicted life ?

A The expected life.

Q The expected life ?

A Yes.

Q That is what I mean, all right, and the same with regard to structures which are obsolescent ?

A Yes.

Q I see. Now I wanted to deal very shortly with this factor of "reasonable expectation" of an investor at the time he makes his investment, and that was discussed by you as being one of the elements to be taken into consideration in fixing the rate base and the rate of return ?

A Yes.

Q Now we have in this inquiry two companies, one is the British American and the other the Madison, the Madison Company being the successor of Royalite. In the case of Madison it might be said that investors had some expectation of selling gas and realizing earnings from that source for many years to come; on the other hand the British American's old installations were not made with any such expectation because Royalite had the exclusive contract for supplying gas, you understand that ?

A Yes.

Q Then having regard to that situation and assuming for the moment that the investors in British American who invested their money for the construction of the old gathering lines constructed, that they had no expectation of any future market for gas ?

A Yes.

Q Could you then uniformly apply that element of reasonable





Andrew Stewart,  
Cross-Exam. by Mr. Blanchard.

- 4548 -

expectation to both those plants, to both the utilities ?

A It seems to me that administratively they would have to be handled on the basis of comparable principles.

Q Would you consider that possibly that situation might warrant a different rate of return for the two companies ?

A No, I should not think that the rate of return would be influenced by merely what you have given me as the assumption.

Q So you leave out the consideration of reasonable expectation altogether so far as the British American Company is concerned ?

A Certainly, so far as the rate of return is concerned and I can see that you will want to arrive at the same rate, the same price.

Q Well now let us pursue that a little further, assuming that the British American has to get back all its capital investment within ten years, while Madison has to get back its investment over the whole life of the field, that is the twenty-five years, would there be any reason there for a different rate of return with respect to those two companies ?

A That raises another consideration I think. As I stated this morning the risk does vary with the time element.

Q Yes.

A In my opinion.

Q That is, that a company that has to have a ten year life is under less hazard than one that has a twenty-five year life ?

A As a general principle, yes.

Q There is less hazard for instance from competing fields ?

A Well our knowledge over five years is more accurate.

Q What ?

A Our knowledge projected over five years is more accurate than our knowledge projected say over ten years or more.

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Andrew Stewart,  
Cross-Exam. by Mr. Blanchard.

- 4549 -

Q So it is possible that those two utilities should be treated on a different basis ?

A That would be a significant factor.

Q For the reasons I suggested ?

A Yes.

Q Now on the question of rate base, I mean, where are you going to apply this reasonable expectation and how are you going to apply it to the British American and with what effect ?

A Well I assume that you are setting one price under these conditions.

Q One price to the Gas Company ?

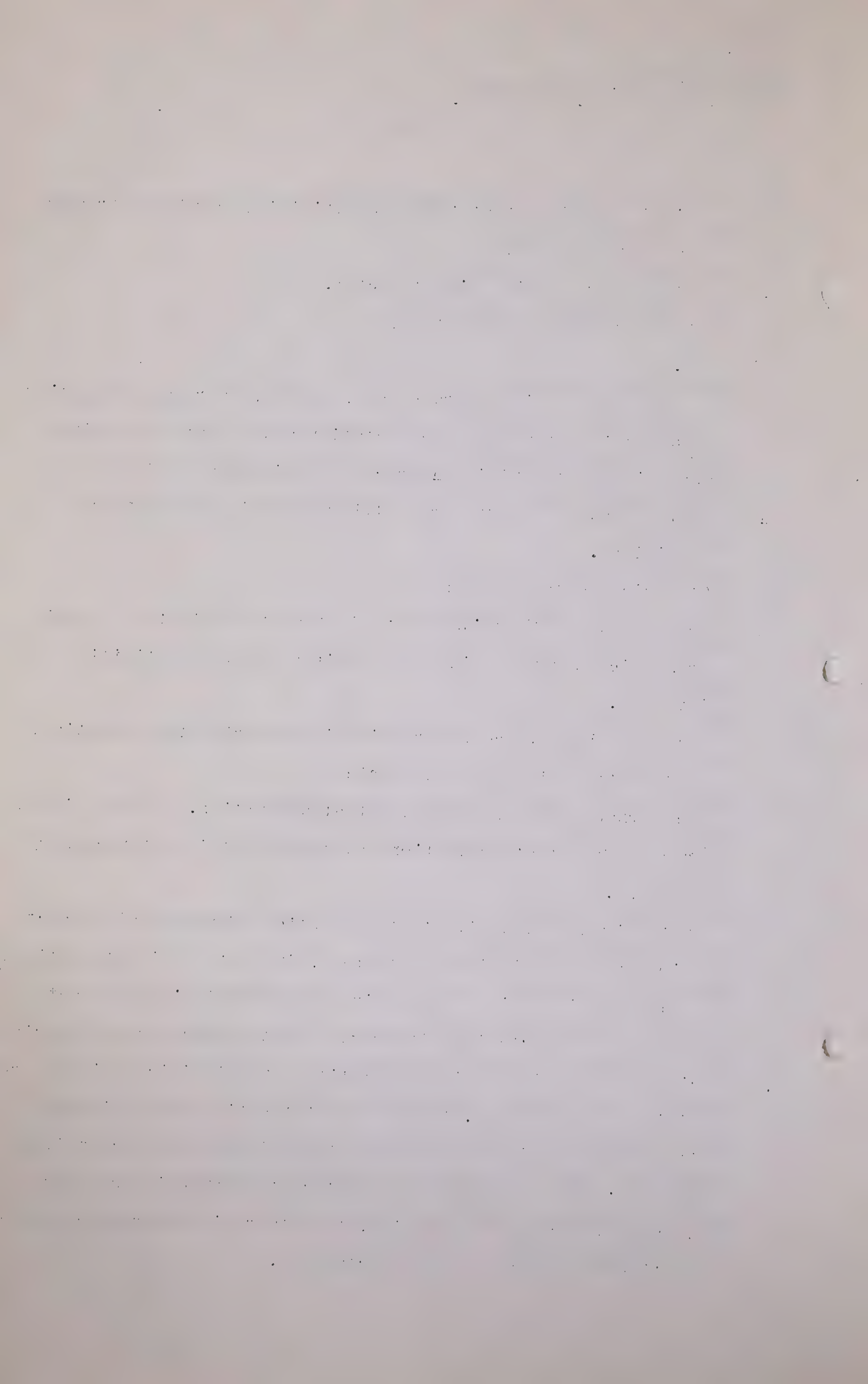
A Well I would rather just leave it that there is to be a price from which a revenue is to be derived by the utilities involved.

Q Well do we have to consider price in answering that question, whether there is one or two prices ?

A Well perhaps I should not make that assumption. I was going to proceed from that assumption and perhaps it is not necessary to do so.

Q What weight do you give to the question of reasonable expectation and establishing a rate base, in what way is it pertinent ?

A Well the point which I emphasized in my submission was that the reasonable expectation with regard to the procedures and principles of public utility regulation was significant in determining the rate base, that is if at the time of the investment it was reasonable to suppose that the investor expected if they should come under regulation that certain principles would be adopted under that regulation, then there is a strong case for meeting those reasonable expectations.





M-4-1 - 2.50 P.M.

Andrew Stewart,  
Cross-Exam. by Mr. Blanchard.

- 4550 -

Q And the reasonable expectation, assuming the reasonable expectation of the investor in the British American Oil Company Limited at the time when early installations were put in, that they were never going to engage in the gas business as such, then you would eliminate that in fixing the basis for establishing a rate base and so on ?

A If those conditions prevailed, yes.

Q Now take the producers who were asking for a well head price. Under the legislation we have the Board will have to fix a well head price for gas. Should this factor of reasonable expectation as it relates to the investor at the time an oil well was drilled and when there was no prospect of selling gas, should that have any effect at all in fixing a price, a well head price ?

A No.

Q It should not ?

A The emphasis in my submission was reasonable expectation in relation to the procedures of regulation and I pointed out it could not be implied entirely because obviously one of the intentions of regulation was to change things. Regulation does not mean anything unless it does.

Q Now a gas utility business is the kind of business that is susceptible to regulation ?

A That is so.

Q And that has really been the situation for the past twenty-five years or more ?

A I believe so.

Q That is it is the type of utility furnishing services to the public ?

A Yes.



Andrew Stewart,  
Cross-Exam. by Mr. Blanchard.

- 4551 -

Q And would you think that an investor who invested his money fifteen or twenty years ago would have a reasonable expectation at some time or another that the business he was investing in would come under regulation ?

A From my general knowledge of the gas situation I would say that would be one of the things I would expect investors to consider.

Q He might also have an expectation that at some time or another other gas fields would be discovered ?

A Yes.

Q That may intrude themselves into the market that his company was at that time serving ?

A Yes. I think the possibility of competition would be one of the things that he would also consider.

Q Not only the possibility but the great probability that other gas fields would be found not far from the market that he was serving. That would be a reasonable expectation ?

A I do not know about the probabilities. I don't know enough about the occurrence of gas.

Q That would however be one of the reasonable....

A It would be one of the things that he should consider and if the evidence was that there was a probability of finding gas, then that would be an effective factor.

Q And the coming of a utility company under regulation really to a certain extent protects it from such competition ?

A Yes.

Q It assures itself of a return on its investment assuming the field does not suddenly disappear. Gas does not suddenly disappear ?

A I think it creates conditions more favourable to that. I do not think it guarantees that.





Andrew Stewart,  
Cross-Exam. by Mr. Blanchard.

- 4552 -

Q Well I think you would say that if legislation - orders of the Board directed a utility to invest large sums of money that it can be assumed that the Board - or any Board charged with jurisdiction in the matter - will not later on bring in orders that will have the effect of confiscating that capital ?

A I certainly would not expect that.

Q Now my friend Mr. Fenerty was discussing with you this question of repressuring gas, and he was suggesting that if the gas to be repressured now should at some time in the future be utilized for carbon black or the manufacture of gasoline or an ammonia plant or to some other purpose, that consumers should not now bear any cost of the repressuring with that possibility in sight. Now would it not be true that the citizens of Calgary for instance would derive an indirect benefit if industries were established such as he suggests ?

A Yes.

Q The retail business in the city would probably benefit to some extent by employment of a number of men ?

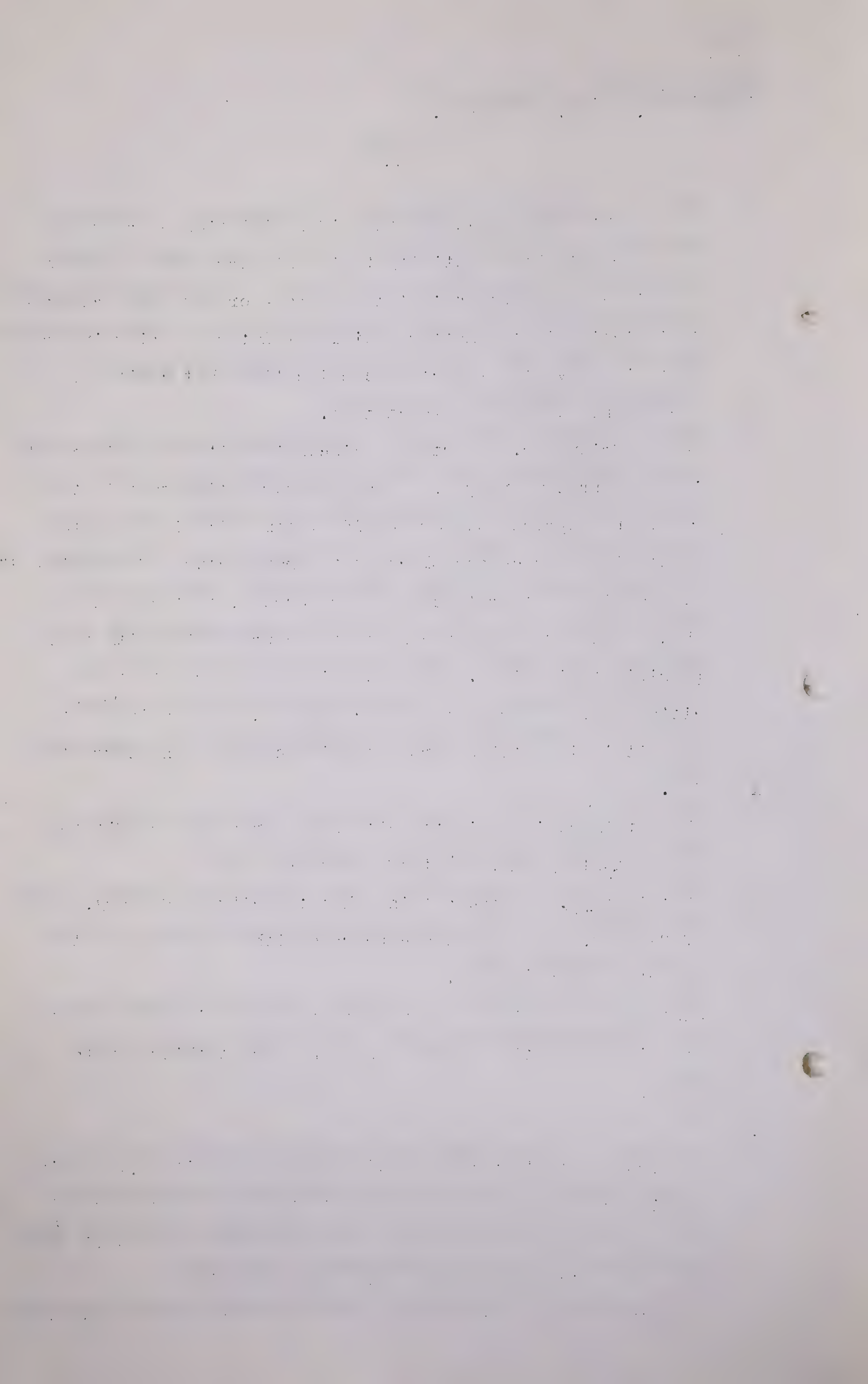
A That is true. I should think that the city of Calgary, people of Calgary, are very much concerned with the future of the Alberta Nitrogen Plant.

Q Just as the proximity to the Turner Valley oil field apart from its production of gas has been a great thing for the city ?

A Yes.

Q And from that stand point would you say that it would be in the interests of the city to see that gas is repressured in Turner Valley whether they use it afterwards as domestic fuel or whether it is used for industrial expansion ?

A Well the answer to that would depend upon the balance of costs



Andrew Stewart,  
Cross-Exam. by Mr. Blanchard.,

- 4553 -

and benefits which offhand I am not in a position to make.  
I think that they would derive benefits.

Q Now speaking of the adoption of the reproduction cost new basis for establishing a rate base. That opens the door I suppose to a wide difference of opinion as to the value of structures and so on ?

A The term "value" is a word of many meanings as has been said.

Q Well it becomes a question of value and not of cost.

A Do you mean that reproduction cost new and value are the same thing ?

Q No, not necessarily, but I say historical cost is actual cost ?

A Yes.

Q And reproduction cost new is not actual cost. It is something that someone says would be the cost today ?

A It is a method of defining cost.

Q All right, now then in establishing a rate base on the basis of reproduction cost new you say it is proper to take into consideration the cost of a substitute plant ?

A I think I suggested that would be one way of approaching the problem of obsolescence.

Q Of obsolescence ?

A Yes, but the alternative way would be to reduce the value of specific parts of the plant on the basis of obsolescence of these parts.

Q It would involve an inquiry for instance as to whether a plant newly constructed for the purpose of delivering gas to Calgary would have its gathering lines in the same locations or whether the services performed by those gathering lines could be much more cheaply performed by shorter lines. That

1. The first part of the document is a list of names and addresses of the members of the committee.

2. The second part is a list of the names of the members of the committee who have been elected to the office of chairman.

3. The third part is a list of the names of the members of the committee who have been elected to the office of secretary.

4. The fourth part is a list of the names of the members of the committee who have been elected to the office of treasurer.

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Andrew Stewart,  
Cross-Exam. by Mr. Blanchard.

- 4554 -

is matters of that kind ?

A Yes. I think I suggested that I preferred the approach to the particular part in the determination of obsolescence rather than to think of the entire thing as being reproduced because that becomes extremely hypothetical. You are closer to reality if you take the parts and work out the obsolescence of them and to the extent that would apply to the sort of thing you are referring to, I agree.

Q And you should take each part of the whole system and consider whether it should be in the place it is and whether it is performing the function, the complete function, it should perform as compared with new parts ?

A Yes.

Q And that of course opens the door to a very wide difference of opinion. That is of different engineers ?

A Yes, but I am trying to limit that by dealing with the particular parts rather than the whole thing. I think the difference of opinion could be narrowed by doing that.

Q Obsolescence of course has no place if you are basing your rate base on historical cost. You take the good with the bad I suppose ?

A Yes, although in setting up an approved set of accounts for continuing application of actual cost I think that provision ought to be made for the possibility of obsolescence.

Q Future obsolescence ?

A Future obsolescence, yes.

Q Now have you considered the question as to whether the price paid for gas by a consumer say in 1970 should be the same as it is tomorrow. That is I am trying to get this. As time goes on the interest returned to the proprietor of the utility goes down ?

1. The first part of the report is a general statement of the purpose and scope of the study.

2. The second part is a description of the methods used in the study.

3. The third part is a description of the results of the study.

4. The fourth part is a discussion of the results and their implications.

5. The fifth part is a conclusion and a list of references.

6. The sixth part is a list of appendices.

7. The seventh part is a list of figures and tables.

8. The eighth part is a list of footnotes.

9. The ninth part is a list of abbreviations.

10. The tenth part is a list of symbols.

11. The eleventh part is a list of definitions.

12. The twelfth part is a list of acknowledgments.

13. The thirteenth part is a list of references.

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19. The nineteenth part is a list of definitions.

20. The twentieth part is a list of acknowledgments.

21. The twenty-first part is a list of references.

22. The twenty-second part is a list of appendices.

23. The twenty-third part is a list of figures and tables.

24. The twenty-fourth part is a list of footnotes.

25. The twenty-fifth part is a list of abbreviations.

26. The twenty-sixth part is a list of symbols.

27. The twenty-seventh part is a list of definitions.

28. The twenty-eighth part is a list of acknowledgments.

29. The twenty-ninth part is a list of references.

Andrew Stewart,  
Cross-Exam. by Mr. Blanchard.

- 4555 -

- A In the case of a wasting asset if the base is written down.
- Q Yes, a diminishing rate base.
- A Then the factor of interest becomes a reduced factor. It is less significant as time proceeds.
- Q And the result is that in the ordinary course of events the consumer twenty years from now will be paying less for interest charges than he would today ?
- A That is so, yes.
- Q Very much so. Have you considered that situation should occur or whether it would be fair that each thousand cubic feet of gas should bear the same interest charges throughout the life of the field ?
- A I would think that on the whole we would start by setting a price which would appear over the prospective life to offer a rate of return on the invested capital on the rate base. That is the problem is an immediate problem is it not. We have to now establish a price related to the rate of return and the rate base of that price for immediate recovery is the price which in the long run, that is over the prospective life of the field, will recover the return allowed on the specified rate base.
- Q Well is it your thought then that the price of gas will remain constant and without regard to the diminishing rate base and the amount of interest that is paid annually to the proprietor of the utility ?
- A I think that the decision at this time would be made on the basis of a price which would be sufficient over the period of useful life and proceed on the basis of that price. That does not guarantee that the price will not have to be changed later.







Andrew Stewart,  
Cross-Exam. by Mr. Blanchard.

- 4556 -

- Q You would probably have too much money in the last ten or fifteen years. You would have more money than you required by reason of the diminishing interest rate. I do not know whether you have given that thought or wish to pursue it ?
- A I think I would like to give further thought to the question.
- Q Towards the end of the life of this field and when the capital investment has been practically all returned by way of amortization what incentive would a utility have to give good service ?
- A Towards the end of the life ?
- Q Yes.
- A Well I would suspect that regardless of the price the reduction in operating expenses would result in a gain to the utility which they would attempt to secure.
- Q Well their capital has practically been paid back we will say.
- A Yes.
- Q Their return on investment is down to zero and I wondered then what incentive the utility would have to carry on, giving good service. Is it desirable to provide an incentive ?
- A In the later years.
- Q Yes.
- A Still assuming that the anticipated rate of depletion actually occurs ?

( Go to Page 4557 )



Andrew Stewart,  
Cross-Exam. by Mr. Blanchard.

- 4557 -

Q Yes?

A I do not think I could see any particular reason. I would like to think over the question more.

Q Would you think that something in the nature of a hold-back might be warranted to insure good service?

A Well, I can see this situation developing, that because of the uncertainties of the amount of reserves, that you might come to a point when you had entirely written off the rate base, and yet there was quite a lot of gas left, and that under these conditions you would want the remaining gas extracted, but at that stage I think you would have to provide some incentive to the utility to continue to extract the gas. Having recovered allox its investment, there is then no further incentive.

Q Yes?

A So far as any residue of gas was concerned. And to meet that situation one method of doing that would be to provide a contingency fund which would then appear as an expense and out of which you would later pay the incentive.

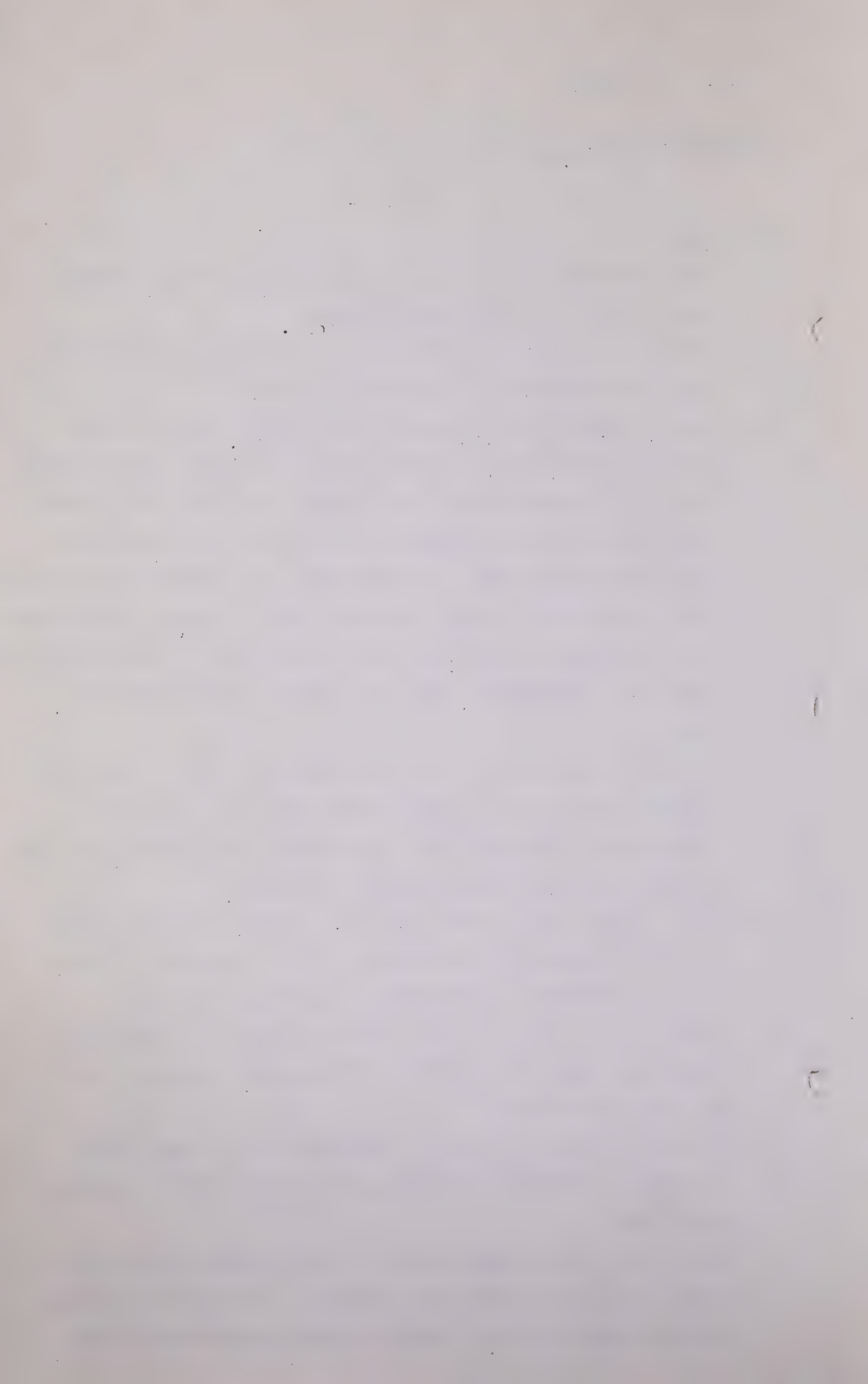
Q What I had in mind, there might be a hold-back in the first 15 years which would then accrue to the utility in the last 10 as an incentive to carry on a high-class service?

A I am not sure of that, but I think to secure the continued operation beyond the period of withdrawal, you would have to pay as an incentive.

Q You would have then to pay a management fee of some kind?

A You would have to pay something, I think, to induce continued operation.

Q Yes. Just to illustrate what I had in mind in asking you about a hold-back, Professor Stewart, I have before me some figures prepared by Mr. Hamilton shown in Statement W-H-26.





Andrew Stewart,  
Cross-Exam. by Mr. Blanchard.

- 4558 -

And this is the return, gross return on a basis of 15-5/6ths per cent, that is  $9\frac{1}{2}\%$  plus 40%. Now, in the first year the gross return would be \$404,000.00, in the first year of operations, 1944, while in 1968 it would be only \$20,900.00. And what I had in mind was whether a small amount like twenty thousand or twenty-one thousand dollars would, in your opinion, provide any incentive for good service.

MR. CHAMBERS: That includes Income Tax?

MR. BLANCHARD: That includes Income Tax.

A I think so, Mr. Blanchard.

Q Pardon?

A I think so. I think as long as there is some part of the rate base which has not yet been recovered, then there is an incentive to the utility to continue in operation until it is recovered.

Q You think there will then be sufficient incentive despite this small amount that they would go beyond that, that there would be an incentive?

A Up to the point where the total rate base has been recovered. Beyond that I do not see any incentive.

Q Yes, that is the last year in which, under this computation, the last year in which there would be any remaining capital investment to be paid?

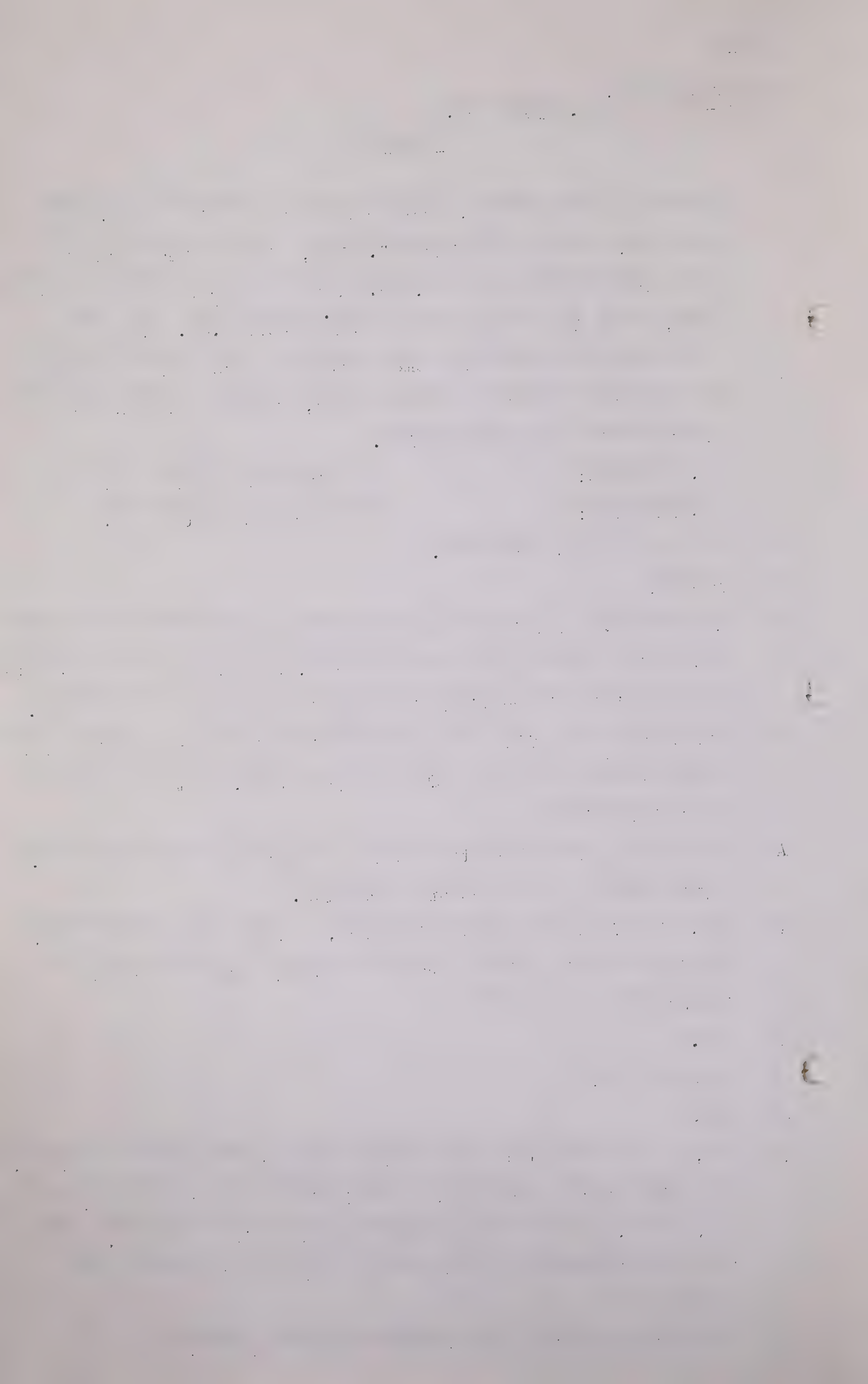
A Yes.

Q In that year?

A Yes.

Q Now, the year before they would have a gross return of \$41,000.00 on their year's operation, which includes the Income Tax, of \$41,000.00, we are just assuming that that is the basis, and in your estimation there would be sufficient incentive to continue?

A To continue until they recovered the full amount.



Andrew Stewart,  
Cross-Exam. by Mr. Blanchard.  
Cross-Exam. by Mr. Fenerty.

- 4558a-

Q And you would not consider that there was any incentive for providing for some hold-back so that there would be a piece of meat on the end of a stick at that time to induce a high standard of efficiency?

A No.

Q All right, that is all.

.....

CROSS-EXAMINATION BY MR. FENERTY

Q Might I also ask one question on what Mr. Blanchard brought out? I want just for a minute to pursue the reference Mr. Blanchard made to the benefits that the City of Calgary would derive from the establishment.....

MR. HARVIE: A little louder please.

Q MR. FENERTY: I am sorry. The benefits that the City of Calgary would derive from the establishment of a lamp black plant in Turner Valley. I think you agreed with him that there might be some benefit to the community, Professor Stewart? I am wondering if we have not been getting into a morass. The benefits, I suggest there, would be to the community as a whole, including the coal burners and the gas burners and everybody else, wouldn't it?

A The benefit would be widely distributed, but there is a general tendency for benefits of new industry of that kind to become concentrated within the immediate area. Boards of Trade are notoriously anxious to instal them.

Q But the man who is burning gas would not get any more benefit from the wages of the man in Turner Valley than the man that was burning coal, would he? That is a general benefit to the community?

A Yes, but there would be a flow of goods through Calgary as a





Andrew Stewart,  
Cross-Exam. by Mr. Fenerty.

- 4559 -

service centre to Turner Valley. It would be a benefit to the people of Calgary.

Q And the community as a whole, not merely to those groups in the community that burn gas, that is what I am getting at?

A Yes, to the people of Calgary as citizens of Calgary generally, as distinct from users of gas.

Q That is it, yes. And there is a possibility that those benefits from such a plant in Turner Valley will inure to a greater extent to the community of Okotoks, I suppose, being nearer the scene?

A I do not know.

Q They may or may not. We do not know, and to the town of Turner Valley, being still nearer. We just do not know, do we?

A No, although as I say there is a general presumption that the benefits will stick largely close to home.

Q And if you do not know who is going to get the benefits, you do not know who should bear the expense, do you?

A Well, you may not be able to allocate the benefits accurately between different peoples, but yet it might be possible to say that there would be some benefits attached to some particular people.

Q Yes?

A And I was unwilling, under examination before, to try and measure that.

Q And am I correct in reading some of the things in your report that you are a firm believer in the theory that those who get the benefits or who use this gas, should pay for it?

A I think that is one of the considerations.

Q Yes. And the situation is, isn't it, that this repressured gas that we are referring to, which may be used by some groups or companies in the future, may be used by them, and that we do not know who they are, and we have no way of apportioning it



Andrew Stewart,  
Cross-Exam., by Mr. Fonerdy.

- 4560 -

until we know, as far as the consumers are concerned?

A That is part of the problem.

Q Yes. And I want you to take a comparison, which I hope the Board would not think is far-fetched, is as far-fetched as my learned friend here does, as I thought that was very apt, the manufacturer manufactures goods that he cannot sell because of over-production, we will say, toys for instance, for the Christmas trade, and sooner or later those toys will be sold, and the purchaser will bear the cost of them, whoever it might be, that is right isn't it, or the manufacturer would take a loss, one or the other?

A Yes.

Q Yes. And the costs will fall either on the person who ultimately purchases or the manufacturer or both?

A In ordinary business, yes. Initially, that is the immediate burden.

Q And by no process of imagination could you charge up any part of those costs to the purchasers of the toys at the time they were purchased?

A With a competitively established price you could not do that.

Q I mean to say, you could not charge up any part of the cost to John Smith, who is buying the toys in 1945, any part of the price of those toys to somebody in 1950?

A You could try to do it.

Q You could try to do it?

A Yes.

Q But if they were subject to regulation it would not be permissible, would it? I am just getting back to the same thing that the person who gets the thing pays for it, isn't that the sound theory?

A That is the way it usually works out.





Andrew Stewart,  
Cross-Exam. by Mr. Fenerty.

- 4561 -

Q I am sorry I was so long at that. Would you look at page 4449, and I want to read the question out so that the rest will see what I am talking about, starting at the bottom of page 4448. I asked a question.

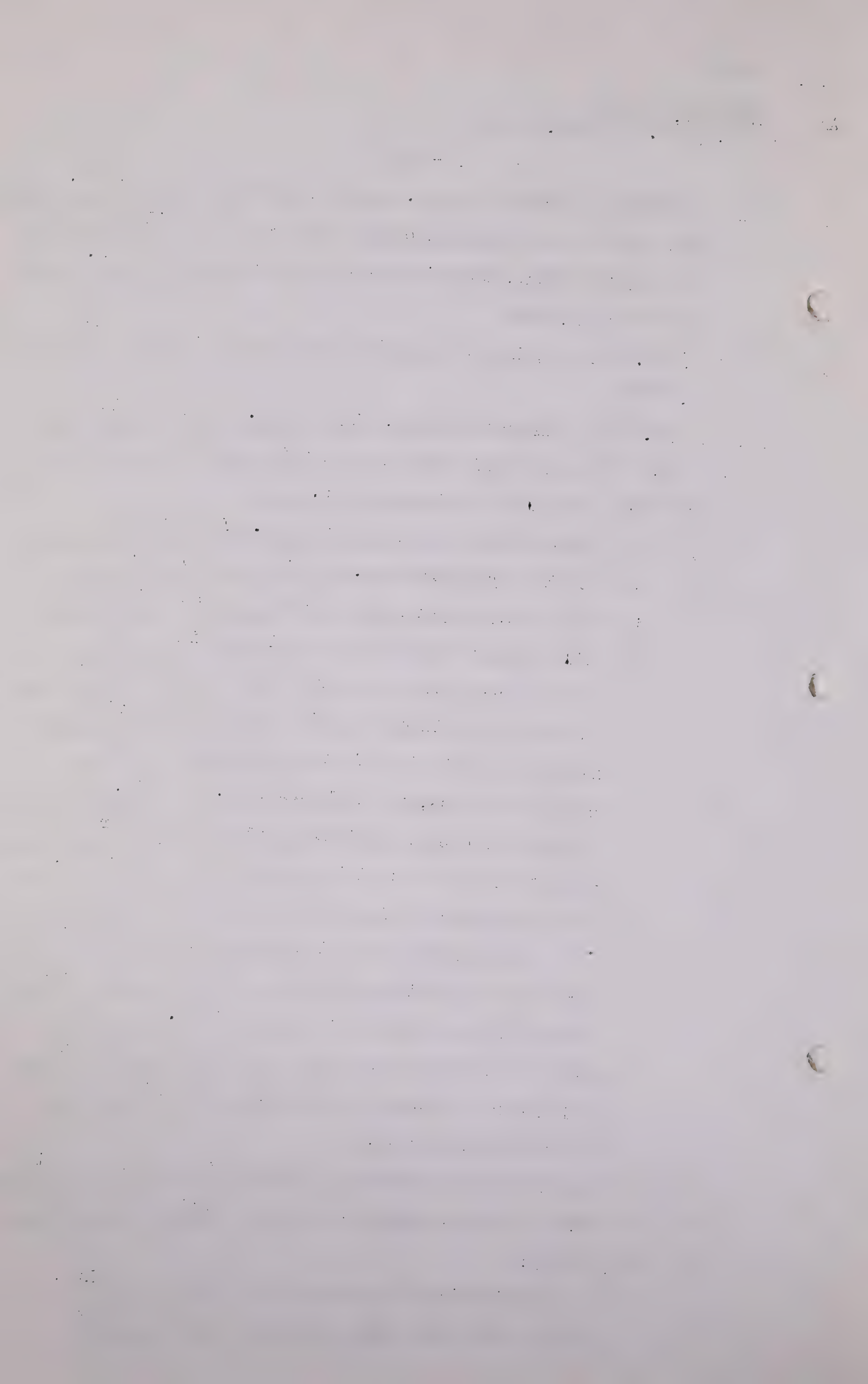
A I think, Mr. Fenerty, I must have the wrong volume. This ends at 4384.

Q I am sorry. Here is another one, Volume 56. I would like to read the question while you are following it so that the rest will see what I was talking about.

"Q Then go one step further than that. Let us assume and merely hypothetically, an oil operator has incurred heavy expenditure because he was drilling for oil and has been successful in getting oil and he has produced for a long period of years and he has had his well on the line to the absorption plant and has got his oil and his share of the absorption returns, natural gasoline, you see, and as a result of those operations he and other operators have depleted the gas field to a very large extent, and as a result of using that gas for a lift they have had profitable operations and they have received a return on their investment and the profits to some extent at the expense of the gas field. Do you make any allowance for that situation when you come to figure rate base and the life of the field and the amortization rate?"

And then you explained to me that you had difficulty in figuring out that term, "at the expense of the gas field", and then you go on and you say:

"If an action is at the expense of something else, then I would certainly conclude there should be



Andrew Stewart,  
Cross-Exam. by Mr. Fencerty.

- 4562 -

"some compensation for that, but my difficulty is with just the significance of the term, 'at the expense of', under these conditions, but if you want to let it go, if it is 'at the expense of', then I think some compensation or some consideration"

and then I interrupted you. Now, I am going to ask you first just to complete that answer, then I will give you what I mean by "expense" and see whether that modifies the answer?

A I shall complete it then, reading from, "but if you want to let it go, if it is 'at the expense of', then I think some compensation or some consideration should be given."

Q Some consideration should be given?

A Yes.

(Go to page 4563)





Andrew Stewart,  
Cross-Ex. by Mr. Fenerty.

- 4563 -

Q Now when I used the term, "at the expense of the gas field," Professor Stewart, I had in mind something that was already referred to at the earlier part of the question, that the operators have depleted the gas field to a large extent as the result of using that gas for a lift and they have received these returns. Now, what I mean is that the value of the gas field, as such, has decreased in the sense that the gas reserves have decreased by reason of those operations, and having decreased it has ceased to bear the same relation to the equipment used in the operation of the field as it did originally, in that the value of the gas field has gone down, and in that process, as a result of the use of the gas, the cost of the equipment has been, perhaps wholly, perhaps in part, been repaid, so that the relationship has been entirely altered; that the gas in the field has received no benefit in the sense that that gas which was used in the old operation then becomes a waste product, is burned, blown off in the air, you see. Now, what I had in mind was, whether or not, if you are going to consider the gas field in its present condition, in its depleted condition, that you should also consider it in relation to the equipment, to the value of the equipment, after deducting the amount used in repaying the costs of the equipment. In other words, - - I am afraid I am mixing it a little, - that you should take it like this, you start with the equipment and the gas field, you have paid for a large part of that equipment in the depletion of the gas field, that is what I mean "at the expense of the gas field." And I suggest to you then that in trying to say what the proper relationship between



Andrew Stewart,  
Cross-Ex. by Mr. Fenerty.

- 4564 -

a depleted gas field and equipment is, if you are going to consider your depleted gas field, you should consider your partially paid-for equipment.

A I think that my suggestion has been that as the field is depleted, you write down the value of your equipment. It is true that you should make provisions for recovering that write-down as you go along, but at any point of time you look at the field and the equipment, the field is depleted and the equipment value is down.

Q Perhaps I'll put it this way, Professor Stewart, with a history of equipment being paid for by the use of the gas, you see, in the ways I have mentioned, if you are going to consider the field as it now exists, you should consider the investment as it now, in fact, exists. That is my real proposition.

A Well I don't think that is inconsistent with what I have already said.

Q No, no, I am not disputing with you; I am wondering if I have got the idea that that is the way that you should handle it.

A Well, I have said that if the material is depleted 50 per cent then in my view the maximum value of the equipment left is 50 per cent.

Q That is all, thank you.

(Go to Page 4565)





T-4-1 3.30 P.M.

Andrew Stewart,  
Cross-Exam. by Mr. Chambers.

- 4565 -

CROSS-EXAMINATION OF THE SAME WITNESS BY MR. CHAMBERS.

Q Professor Stewart, would you consider this a matter of sound economics as well as of good public utility practice that a company in the business of supplying gas to a community should, in order to insure a future supply, spend money by way of investment and some operating costs to keep available assured additional gas wells or additional gas areas than its immediate requirements call for?

A Yes.

Q I suppose the basis of that is that they are dealing in a wasting asset and they have to have something to replace it.

A No, the basis is simply that that is sound business anywhere. If you think that there is a possibility of getting a return on the additional investment then make it. You are taking chances but it is still sound business.

Q Would you consider it also as proper practice to follow for a public utility company?

A Well I think in reply to that I would say that under actual costs, if the utility comes under actual costs, that I think is the sort of problem that should be worked out between the Board and the management before action is actually taken.

Q But I am talking about public utility practice, is not the theory behind the matter of public regulation to leave the actual business judgment more or less to the undertaker and that the Board periodically scans or examines that judgment and as long as it is in accordance with reasonable business practices, that the Board does not interfere only to the extent that the company does not make undue profit. Would not that be more or less the theory behind public utility regulations? You have the benefits of private management



Andrew Stewart,  
Cross-Exam. by Mr. Chambers.

- 4566 -

and you have on the other side the Board, the regulatory Board, as a watch dog in the general interests of the public to see that the Company does not make undue profits and renders reasonable service.

A My position is that you would not have regulation without having some effect on the operation of the company. That is to say regulation does not mean anything unless the way in which things are done are different than they would have been in the absence of regulation. I then go on from that and say in my opinion the degree of interference should be kept as close to the minimum as possible. That is as far as possible leave the decisions to the management. In my submission I point out that one of the difficulties I see with the application of actual cost -now it has advantages in some respects - but one of the difficulties I see with it is that it seems to me to imply a very close relation between management and the administrative board, which is another case of the sort of thing you have suggested. I can see that the utility would not be anxious to undertake an investment of the kind you suggest under conditions of actual cost without consulting the Board before it did it, so that it would have some assurance that later the Board would not say that was an unwise thing to do.

Q Presuming that the Board considered either ahead of the time or afterwards that it was a wise expenditure in the interests of the community in general, would you or would you not agree that it would be proper and fair for the utility to be allowed in the rate it is currently charging to the consumers the capital charges.

A Under actual cost that would certainly be done.





Andrew Stewart,  
Cross-Ex. by Mr. Chambers.

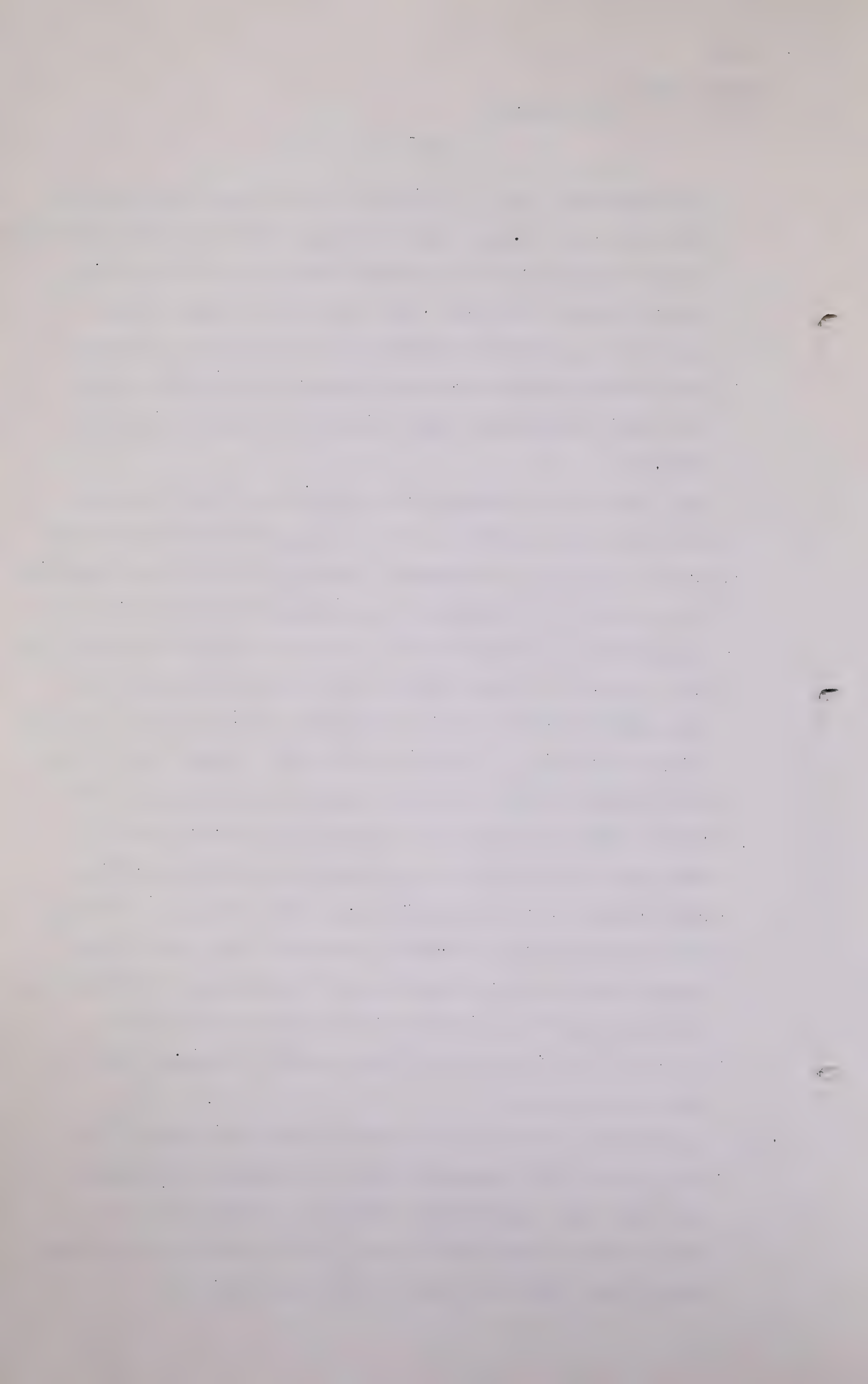
- 4567 -

Q I am referring now to a utility that is under regulation on an actual cost basis. You will agree that was proper practice?

A I think the question of prudent investment comes in there. The only thing I can see, Mr. Chambers, is under actual cost with regulation, to avoid the uncertainty of future judgment by the Board on the prudence of the investment, that the utility would first consult the Board before it made it.

Q What I am really getting at is a question of not so much fairness so far as the utility is concerned but the question as to the fairness as between the present day actual consumer, who happens to be connected and paying the rates today, as compared to the fellow who is going to be here five years from now, you see. The man here today is probably getting his gas supplied from a well already bored and operating, but the utility company in the exercise of good judgment and to the satisfaction of the Board says instead of having this one well producing we want some acreage next door, we want to make sure we are going to have gas 10 years from now. It costs money to carry that acreage. I am asking if it would be fair and proper as between consumers today and of the future that in the present day rate there should be something to provide for the capital charges that the utility is incurring today in carrying this reserve acreage. What do you say as to that?

A I would say if the Board decided it was desirable in the interests of the consumers over a long period to secure the right over these lands adjacent, so that at a later time drilling might take place, then the cost of acquiring those lands should be put into the rate base.



Andrew Stewart,  
Cross-Ex. by Mr. Chambers.

- 4568 -

Q My learned friend, Mr. Blanchard, mentioned to you, I think one of his first questions he put to you was this matter of a quotation from one of the judgments in the United States about the Excess Profits Tax. You are familiar with the set-up of our Excess Profits Tax are you?

A Yes.

Q And that the excess Profits Tax Act provides for two sets of taxation, does it not?

A Yes.

Q One tax is in effect a straight income tax that all companies have to pay and that tax applies to companies under the Income Tax Act and is a 40 per cent tax is it not?

A Yes.

Q Then in addition those companies that are making more than they made on the average in the standard period of 1936 to 1939 there is a provision in the Excess Profits Tax that over and above this 40 per cent, everything it makes over the standard profits is taken away, subject to a 20 per cent refund?

A Yes.

Q What I am getting at is when you agreed with Mr. Blanchard's proposition were you referring to all taxes under the Excess Profits Tax or only to that excess business?

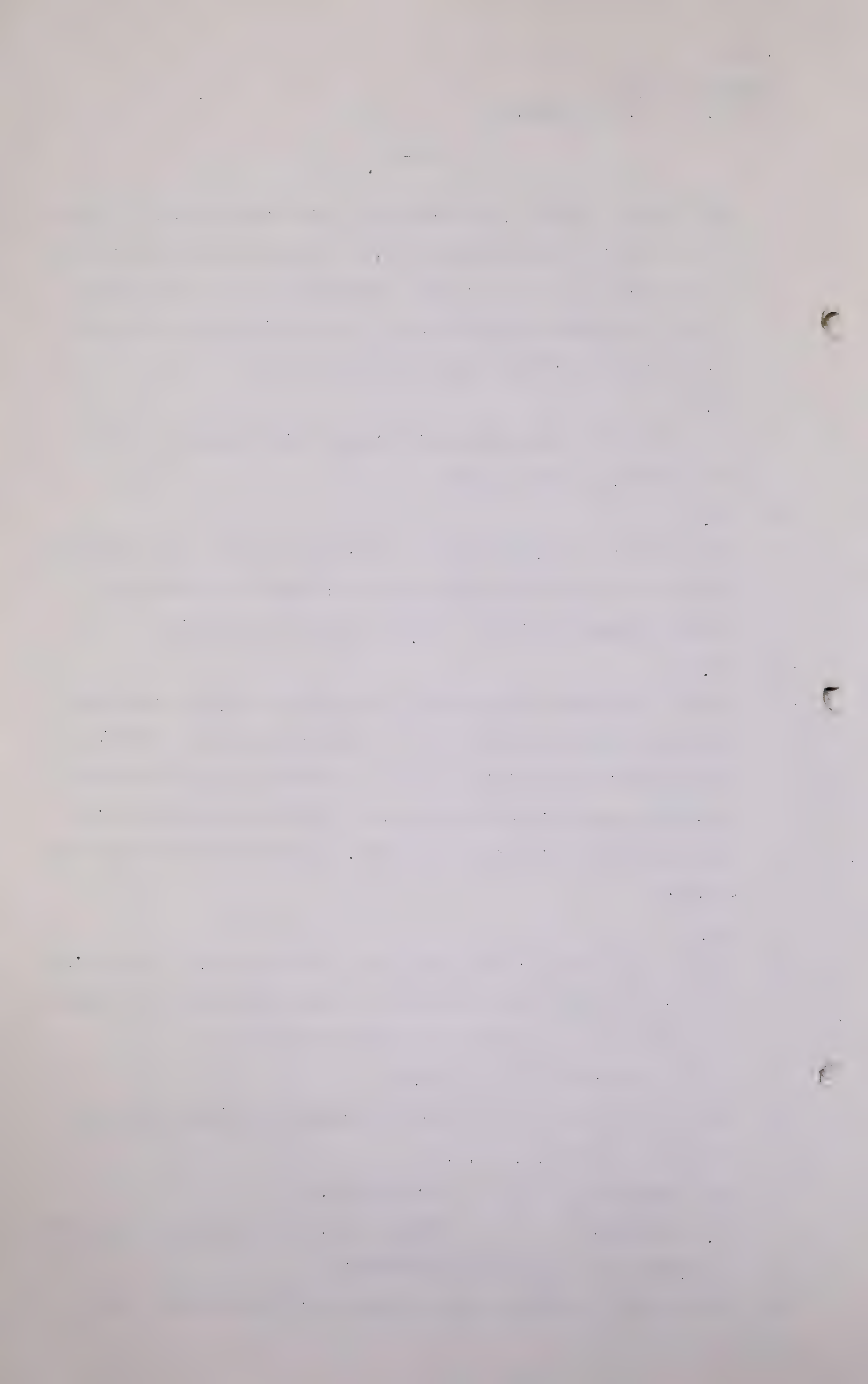
A I was referring to all taxes.

Q That is you say the 40 per cent income tax which includes 12 per cent is it. . . . .

MR. HAMILTON: 22 per cent.

MR. CHAMBERS: 22 per cent, should not be properly allowed as an expense of operation?

A Oh it may be allowed as an expense of operation but that





Andrew Stewart,  
Cross-Ex. by Mr. Chambers.

- 4569 -

must be taken account of in arriving at the rate of return.

Q Now in fixing the present rate of return would you agree with this, that the test is what other rates of return are and what other risks are.

A In other investments?

Q Yes.

A Yes.

Q Well now, those rates of return in other businesses are after the tax, the full income tax included, that is the 22 per cent, are they not?

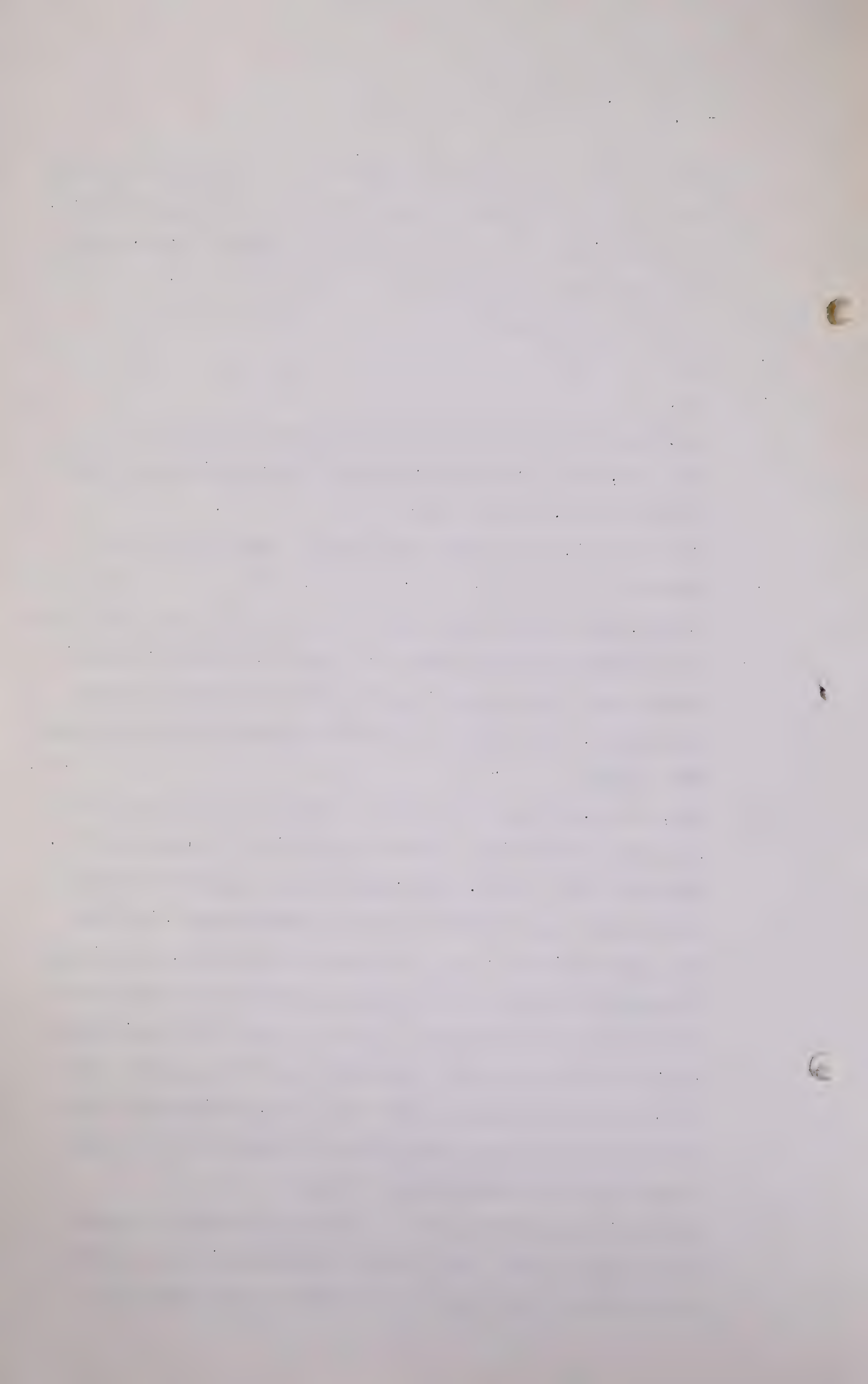
A That depends on how they are stated. They could be so stated.

Q I mean when you come to compare the rate of return that is to be allowed any utility with the rate of return of another enterprise, private, you must in fairness decide whether the other rate of return is before or after full income tax.

A Yes, right.

Q Just one other point when we are talking about income tax. My learned friend Mr. Fenerty put to you an assumption yesterday and I am not sure whether you agreed with it or whether you just accepted it as his assumption. I think the proposition was put to you that if prior to regulation a company had expensed an item of construction instead of capitalizing it that it is unfair now when you come under regulation and prepare a new rate base, it is unfair now to include that expense item because the company has made a big saving or made some saving in income tax. Did you agree with his assumption yesterday?

A My general position is that I think it unwise on general principles to take into account procedures of the utility in the past. That is, I do not think book records are



Andrew Stewart,  
Cross-Ex. by Mr. Chambers.

- 4570 -

significant for an initial basis.

Q Professor Stewart, do you know that in 1938, that is before the war, the total company income tax was 20 per cent was it not? That is including Provincial and Dominion. It was either 18 or 20 per cent.

MR. HUMPHRIES: 15 and 5/8ths.

Q MR. CHAMBERS: You know now it is 40 per cent?

A Yes.

Q And it has been since 1939. I suggest to you that a company in 1938 constructed certain items of plant which it charged to expense and which the income tax authorities also allowed as an expense, I suggest to you that if instead of doing that in 1938 the company had capitalized that equipment and if it had done that it would have been allowed, we will say, a rate of depreciation of 10 per cent a year and it is entitled to write off 80 per cent under the income tax act.

A Yes.

Q I suggest that if it had done that in 1938 and had written off a depreciation of 10 per cent since then, in view of the rising income tax rate the company would have paid less income tax than if it had expensed it in 1938.

A Yes.

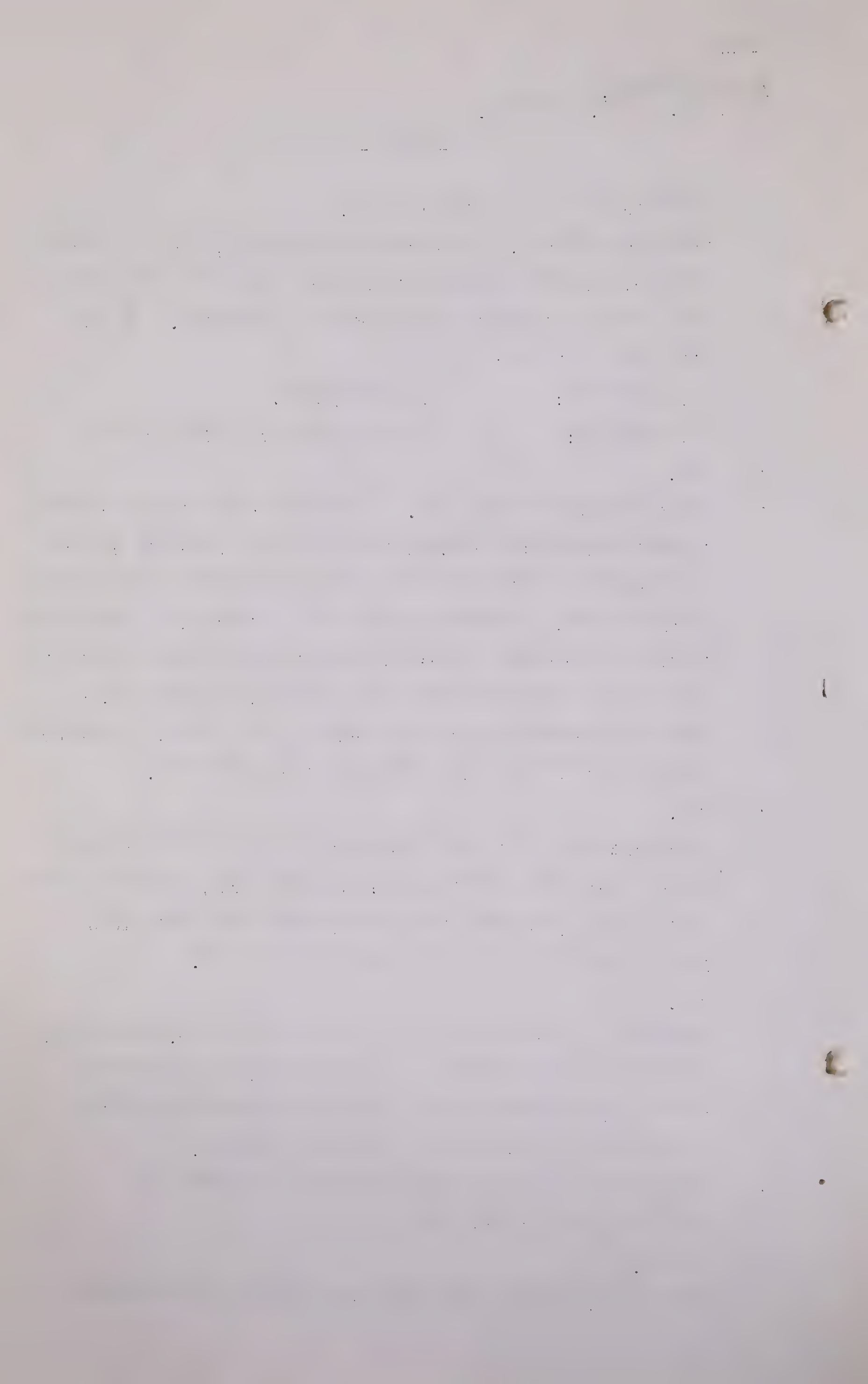
Q You made one statement to my learned friend, Mr. Blanchard, talking about this matter of expectation, that a person in the gas business should pretty well expect regulation or it should not come as an absolute surprise.

A On the basis of my general knowledge that seems so.

Q You have read this Act have you?

A I have.

Q Do you know of any legislation anywhere of the nature of





Andrew Stewart,  
Cross-Ex. by Mr. Chambers.

- 4571 -

this Act; that has gone as far as this statute has in charging a Board, the regulatory Board, with fixing the price of gas at the well head.

A I am afraid I am not in a position to interpret legislation to know whether it goes farther than another piece of legislation or not.

Q I gathered from what you said to Mr. Blanchard that you had made some study of regulation of gas companies in other places.

A I know gas has been under regulation in other places for many years.

Q Do you know of any specific case where it has gone as far as fixing the price of gas at the well head?

A I cannot think of any at the moment.

Q Have you read any of the recent public utility decisions in the States, dealing with gas?

A I have gone over some of the reports in the P.U.R.

Q Now do you remember the recent decision of the United States Supreme Court in the Colorado and Canadian River cases?

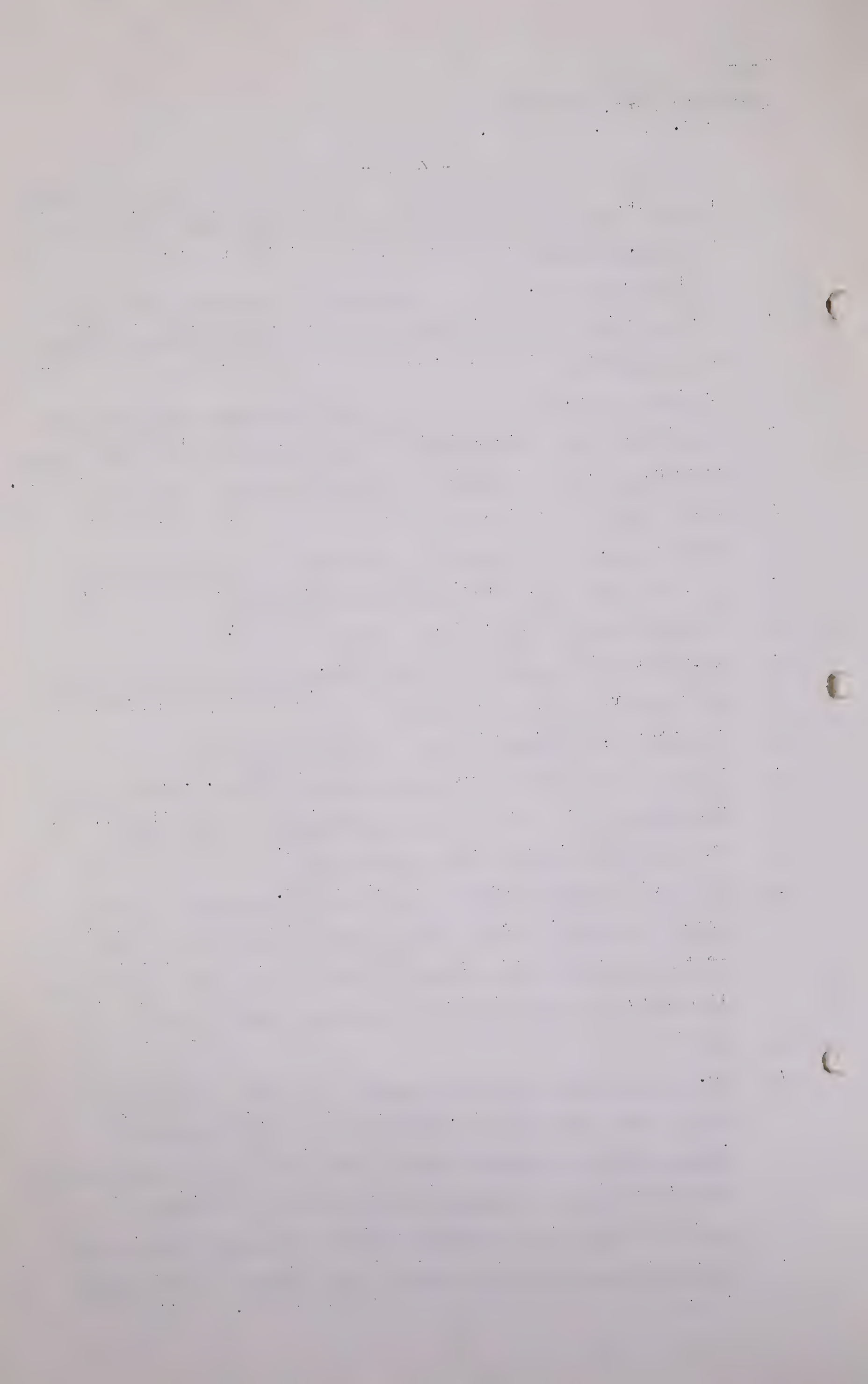
A I do not remember the case specifically.

Q Where the question came up about how to allocate the cost of the production of gas and as to what was the dividing line between the jurisdiction of the Federal Power Commission and the local Estate Board? You do not recall that?

A No.

Q Then assume this with me, assuming that this legislation is new, not only here in Alberta but in other parts of Canada and in the United States, then what set of expectations should this Board proceed on in arriving at fairness.

A Surely in any field of public utility regulation there must be some principles which apply in all cases. I have tried



Andrew Stewart,  
Cross-Ex. by Mr. Chambers.

- 4572 -

in my submission to lay down what seems to me to be adequate general principles. I then note that there is a specific case, a special case of a wasting asset. If you are dealing with that situation then there are some additional principles which would be significant and on some modifications with other principles, which would be significant in the case of any wasting asset. It is true that an entirely new particular situation might develop and there might be some aspects of that problem in relation to which there is no precedent. In that case there is no expectation.

Q What I am suggesting to you is that in a case where there is an absence of precedent and no definite expectancy and that when by legislation you move in and change or take control of the property and affairs or the operations rather of the company, plants or property under private enterprise; that when there is a doubt as to, or a real absence of expectation that the Board or the regulatory authority or the law, put it that way, should lean on the generous side so far as the person whose property is being interfered with. I suggest that, in the light of our previous discussion when I first started my cross-examination. What do you say as to that?

A Upon the whole I would agree with that, yes.

THE CHAIRMAN: Mr. McDonald?

MR. McDONALD: I have nothing more.

(Go to page 4573)





C-4-1 - 3.50 P.M.

Andrew Stewart,  
Cross-Exam. by Mr. Harvie.  
Exam. by The Chairman.

- 4573 -

Q I have just one question which arises out of Mr. Blanchard's question, you feel when an utility has come to the end of its useful existence, any salvage at that time really belongs to the utility and it should benefit by it ?

A Yes.

Q Supposing during the life of the utility at some stage we will say, when we have set a rate base on ten years' life ?

A Yes.

Q It was replaced at the end of the two years.

A Yes.

Q Would your viewpoint be the same, that any salvage it might have should belong to the utility for that particular item that was replaced ?

A After the two years.

Q Yes.

A Well normally in providing for depreciation the salvage value is taken into account, that is if the asset will have a salvage value at the end, then you depreciate the initial cost less the salvage value at the end.

Q And if there is no salvage value taken into consideration on that basis you would say anything that there was, either a liability or an asset, whatever it would be, would be an asset of or a liability of the utility ?

A Yes.

MR. HARVIE: That is all, thanks.

Q THE CHAIRMAN: Well I have a number of questions, Prof. Stewart, I will not ask them all, but I will ask a few of them because all the Counsel have taken up my time. Let us assume you have a case where you have two companies, "A" and "B" and



Andrew Stewart,  
Exam. by The Chairman.

- 4574 -

they are both coming under regulation for the first time and for simplicity we will say that each plant originally cost \$1,000.00; the management of one company decided to pay handsome dividends and did not bother about depreciation at all, so that so far as their books were concerned, they had not recovered any part of the capital cost; the other management decided that they were going to recover their capital before they paid any dividends, so that you have the two cases coming under regulation, one company still has its plant on its books and its original cost without any depreciation and the other plant completely written off; how would you construct a rate base for those two companies ?

A Well I think in the first place they must be treated uniformly and as I have indicated before it seems to me in any case the book records are irrelevant to the determination of the rate base in an initial rate base case.

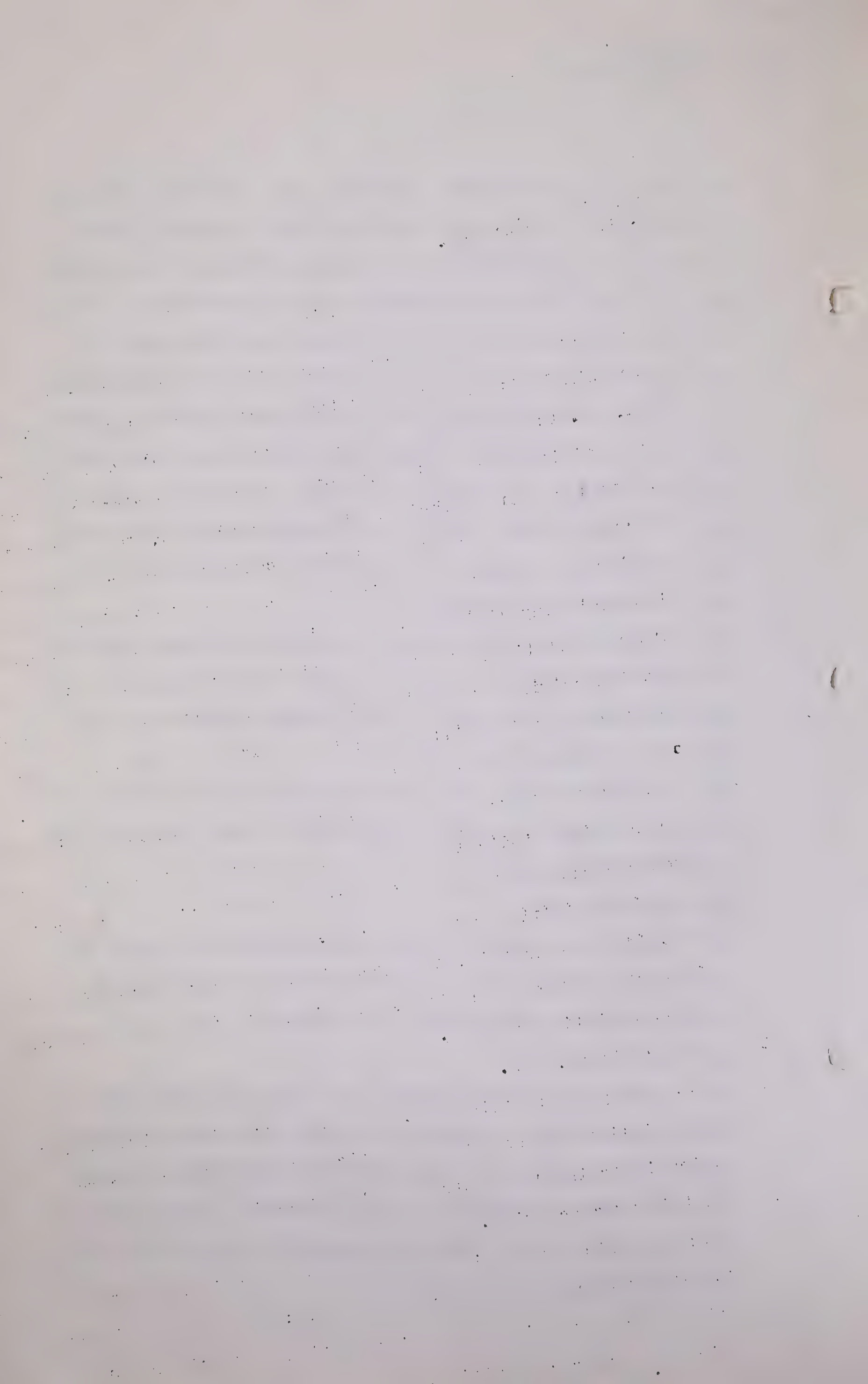
Q Yes, it comes to this, that you might say that dividends were in part a return of capital, especially if they were paid out of depreciation reserve.

A They could be, yes.

Q Yes. It comes to this then, that the accounting figures for depreciation really have no particular value to the Board which is trying to construct a rate base ?

A That is my conclusion.

Q Yes; the price of gas in Calgary was reduced in 1943 from twenty-seven cents to twenty-five cents; have you any information or can you give us any information as to the relative prices of other commodities, I mean consumer goods, between 1943 and 1945, are you familiar enough with that to give us even the trend ?





Andrew Stewart,  
Exam. by The Chairman.

- 4575 -

A Yes, if anything there has been an increase.

Q Now if that is so why should not the price of gas be affected in the same way as any other commodity, that is go up in times of inflation and come down in times of deflation ?

A Well I do not know why we should necessarily reproduce certain undesirable features or competitive situations like that.

Q Perhaps that is the answer, if there is no competition ?

A It is of course true that even in a period of general rises in prices, particular prices may fall even under competitive conditions. Technical improvements may occur which make it possible to reduce the price although the general tendency is upwards. That is of importance.

Q Would it be correct to say that under competitive conditions the value of a plant is the capitalized value of its net revenue ?

A The main factor determining the value of the plant under competitive conditions is the estimated net earnings capitalized.

Q And that may have no reference or may not be related at all to historical costs, original costs or reproduction new ?

A They may diverge and do diverge.

Q Could that principle be applied to the valuation of a public utility property which is coming under regulation for the first time ?

A Unfortunately not. The exchange value or sales value or earnings capitalization value are simply inapplicable to such a problem of valuation. One of the things determining earnings is price and price is a thing to be determined in a case of public utility regulation.

Q There is a well known case decided in the United States. The principles laid down there having been departed from in the



Andrew Stewart,  
Exam. by The Chairman.

- 4576 -

meantime, but going back to it, the Court laid down, amongst other things, two rules which a Board should follow in constructing a rate base; one, that it must determine the present value of the property and that it must also consider original costs, can you tell me how those two factors could be scientifically rationalized by a person like myself trying to follow the rules in that case ?

A The statement in the dictum, Smythe vs. Ames, to which I think you referred - -

Q That is correct.

A Contains the word "consider".

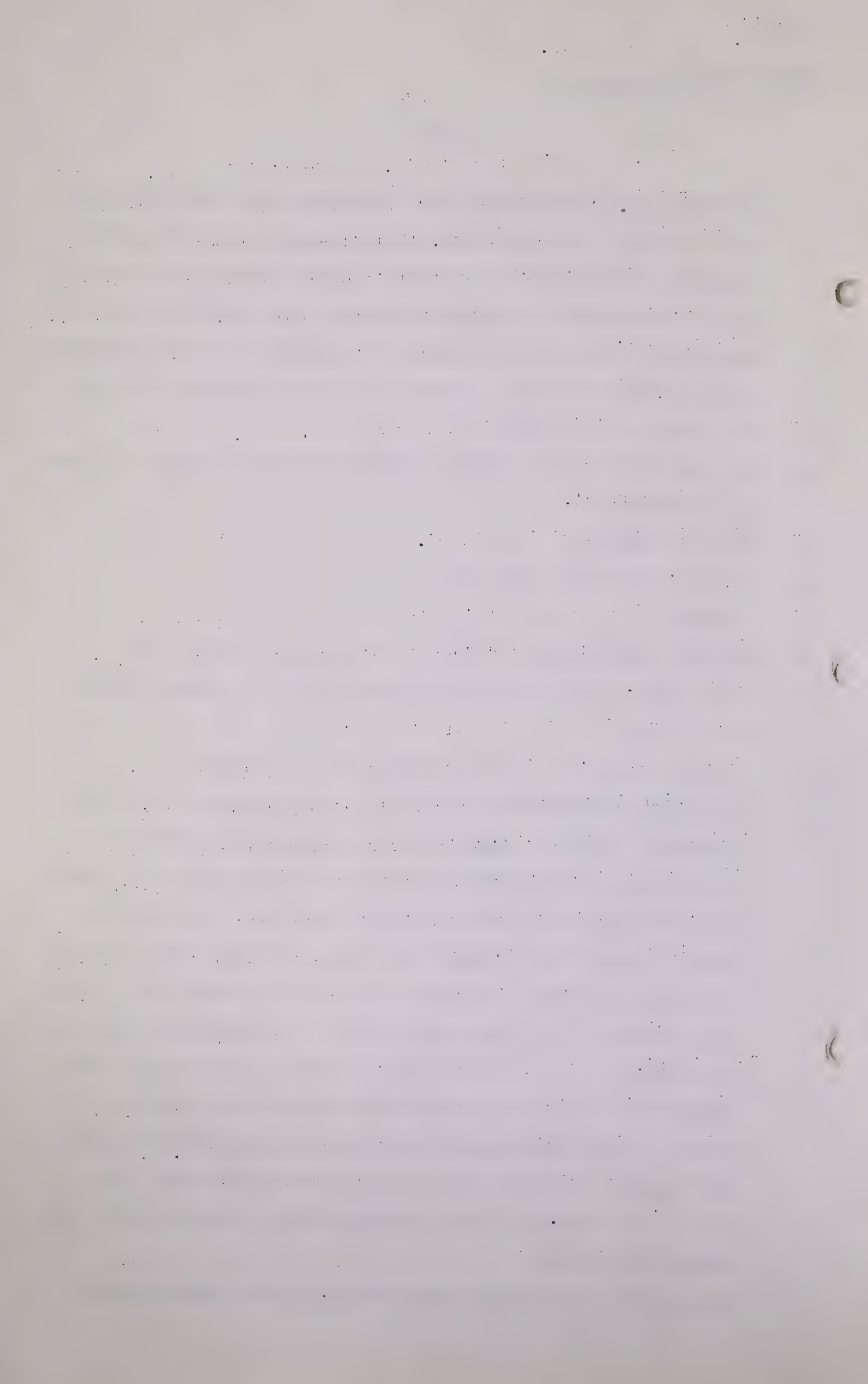
Q I know.

A And the discrepancy I think in that famous statement is exactly on that word "consider" which is I think no guide to a Board.

Q You can consider it without giving it any weight ?

A That is quite conceivable but what I was trying to do in my submission is to say under certain circumstances original costs, under other circumstances reproduction costs and under still other circumstances something less than reproduction costs. Now putting ourselves in line with this case my statement might have been "consider reproduction costs" but I think for effective legislation you have got to substitute something more precise as a general basis of regulation than the word "consider". That is, my proposition might have been at a period of high prices something less than reproduction costs and to make it precise, half way in between the two. Then you have two precise bases for considering original costs and reproduction costs.

Q There is one other point that I am not quite clear on with





Andrew Stewart,  
Exam. by The Chairman.

- 4577 -

reference to obsolescence with relation to original costs and again for simplicity let us take a plant with three machines and let us assume that the Board is going to use the original cost method of arriving at its rate base and each machine originally cost \$100.00, and forget about depreciation for the moment.

A Yes.

Q On the original cost theory then the rate base would be \$300.00, three machines at \$100.00 each, but one of the machines is obsolescent and a more efficient machine can be purchased for \$50.00, what is the rate base under those conditions ?

A Well either you lay down the principle that under original costs, when initial valuation takes place, you will not consider obsolescence or the principle is that you will. If original costs implies no consideration of obsolescence then you must take it on the basis of original costs without obsolescence.

Q Let us apply that to the Girbotol plant we have been talking about today and let us assume that the Board has decided that Madison's rate base should be on the basis of original costs, then the Girbotol, - I am sorry, I mean the Seaboard unit, although obsolescent, would be included in the rate base at its original cost less depreciation ?

A Yes.

Q And would then the operating cost factor come in at all ?

A Well I would think at some stage before very long you would be forced to the question of whether that piece of equipment should be replaced or not, I mean it is obsolescent, its costs of operating are, of operation, are high. At some time after the initial valuation you may have to even replace it, due to



Andrew Stewart,  
Exam. by The Chairman.

- 4578 -

obsolescence.

THE CHAIRMAN: Now is there anything further, if not we will adjourn until Monday morning and we will sit on Monday and Tuesday only.

MR. STEER: Some of us are wondering about the week of the 17th of December and making plans.

THE CHAIRMAN: I am going to sit on the week of the 17th on Monday, on Tuesday and on Wednesday.

MR. HARVIE: Mr. Chairman, I do not know whom we may have on the stand at that time. Mr. Donellan will be here next week but the Company's year ends this month and he cannot be here on the week of the 17th.

THE CHAIRMAN: - It is quite possible that Mr. Hamilton will take up all that time.

MR. HARVIE: We are particularly anxious to have Mr. Donellan here during Mr. Hamilton's evidence.

THE CHAIRMAN: As I understand it, Mr. Hamilton will be resuming his evidence on Monday of next week.

MR. HARVIE: Yes, but on the week of the 17th, I understand it is just impossible for Mr. Donellan to be here on account of the end of the year. If there were some other witnesses it might be all right, but it just so happens that it would be practically impossible for us to have him here during that week and we want to have him here if Mr. Hamilton is in the box, in connection with B. A. evidence.

THE CHAIRMAN: I realize you can defeat my intention of sitting the week of the 17th by not having any witnesses ready but I might tell you right now I will not be well pleased if you do.





Andrew Stewart,  
Exam. by The Chairman.

- 4579 -

MR. CHAMBERS: I would suggest we do decide to finish Mr. Hamilton's evidence up before Christmas because he is dealing with one phase of this whole Hearing which has been going on for a long time and I do suggest we should try to finish him.

THE CHAIRMAN: Yes, and more so it is true, I would like to finish this thing during my life time. Well, all right, we will adjourn now until Monday morning.

(The Hearing was here adjourned to be resumed at 9.30 A.M.  
Monday, December 10th, 1945)











